

This collection is made of nr. 23 Technical Cards that presented below outline the list of products which are eligible for For Textile Certification as specified in the “For Textile Disciplinary Regulations”.

The guaranteed eco-toxicological product performances are indicated in “Safeguard of health in textiles” Card nr. 24.

The test methods reported in all Technical Cards refer to the latest update available.

Special Rules apply to all products

Values lower to ones reported into Technical Cards, if the use of the best technologies doesn't allow to reach the fixed requirement, can be accepted.

Any deviation must be pointed out to Customer.

Such special rules are not apply to:

- Eco-Toxicological Performances reported into Technical Card nr. 24
- Binding Requirements required for some overseas markets Export

It underlines that, as in some Countries there are binding requirements not provided for For Textile Technical Cards, in case of Export, the regulation in force for the destination Country has to be verify.

CLOTHING FABRICS

	<u>Technical Card</u>	<u>Rev.</u>	<u>Date</u>
Woven Silk fabrics for outerwear	nr. 1	10	10.02.22
Blended Silk woven fabrics for outerwear	nr. 2	10	10.02.22
Woven Polyester fabrics for outerwear	nr. 3	10	10.02.22
Woven fabrics in Cellulose Fibres and blended for outerwear	nr. 4	10	10.02.22
Woven Polyamide fabrics for outerwear	nr. 5	10	10.02.22
Woven fabrics in blended Polyester and blended Polyamide for outerwear	nr. 6	10	10.02.22
Knitted fabrics in continuous yarn and related blends for outerwear	nr. 14	10	10.02.22
Woven fabrics in discontinuous yarn for outerwear	nr. 20	5	10.02.22
Knitted fabrics in discontinuous yarn for outerwear	nr. 21	5	10.02.22

FABRICS FOR SHIRTS

	<u>Technical Card</u>	<u>Rev.</u>	<u>Date</u>
Woven fabrics for shirts	nr. 22	5	10.02.22

FABRICS FOR TIES

	<u>Technical Card</u>	<u>Rev.</u>	<u>Date</u>
Woven Silk fabrics for ties	nr. 7	10	10.02.22
Woven blended Silk fabrics for ties	nr. 8	10	10.02.22
Woven Polyester fabrics for ties	nr. 9	10	10.02.22
Woven fabrics for ties (other fibre composition)	nr. 19	6	10.02.22

FOULARDS AND SCARVES

	<u>Technical Card</u>	<u>Rev.</u>	<u>Date</u>
Silk foulards and scarves	nr. 10	10	10.02.22
Blended Silk foulards and scarves	nr. 11	10	10.02.22
Polyester foulards and scarves	nr. 12	10	10.02.22
Blended Polyester and blended Polyamide foulards and scarves	nr. 17	6	10.02.22
Foulards and scarves (other fibre composition)	nr. 18	6	10.02.22

FABRICS FOR BEACHWEAR AND UNDERWEAR

	<u>Technical Card</u>	<u>Rev.</u>	<u>Date</u>
Knitted elastic fabrics for beachwear	nr. 13	9	10.02.22
Woven and knitted fabrics for underwear	nr. 23	5	10.02.22

FABRICS FOR FURNISHING AND CURTAINS

	<u>Technical Card</u>	<u>Rev.</u>	<u>Date</u>
Woven fabrics for upholstery	nr. 15	10	10.02.22
Woven fabrics for interior curtains	nr. 16	10	10.0.22

ECO-TOXICOLOGICAL PERFORMANCES

	<u>Technical Card</u>	<u>Rev.</u>	<u>Date</u>
Safeguard of health in textiles	nr. 24	14	08.03.23

TECHNICAL CARD N° 1

WOVEN SILK FABRICS FOR OUTERWEAR



This Technical Card reports the guaranteed performance for outerwear in woven silk fabrics, in conformity with the standard UNI 10882. It details the Regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value	
1) Mass per unit area (g/m ²) -UNI EN 12127-:	-4%/+6%
2) Min. usable width (m) -UNI EN 1773-:	-1%
Physical-Mechanical performances: guaranteed minimum values	
3) Breaking strength-elongation (N) UNI EN ISO 13934-1: <ul style="list-style-type: none"> >150 N for area mass <40 g/m² >250 N for area mass 41<x<80g/m² >300 N for area mass 81<x<160g/m² >450 N for area mass x>160 g/m² 	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1: <ul style="list-style-type: none"> >60 N for area mass <40 g/m² >80 N for area mass 41<x<80g/m² >110 N for area mass 81<x<160g/m² >130 N for area mass x>160 g/m²
5) Cross distortion with straight weft (%) BS 2819: <ul style="list-style-type: none"> <2,5% for visible weft fabrics <4% for no-visible weft fabrics 	6)) Dimensional stability to steaming (%) DIN 53894-2: <ul style="list-style-type: none"> ±2% max for fabrics with yarn up to 600 tpm ±3% max for fabrics with yarn higher than 600 tpm
7) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*):	±2% max
8) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*):	±3% max
SPECIAL RULES	
<ul style="list-style-type: none"> - When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 3-4-5-6, any deviation must be communicated to the client. - Requirements marked (*) are only applicable if set out in the care instructions. 	

9) Colour fastness: guaranteed minimum values						
	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12) (**)	-	4	-	3-4	-	3-4
To wet rubbing (UNI EN ISO 105-X12) (**)	-	3-4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To water (UNI EN ISO 105-E01)	3-4	3	3	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	3-4	3-4	3-4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	4	3-4	3-4	3-4	3
To hand washing (UNI 10994) (*)	4	4	3-4	3-4	3-4	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-
SPECIAL RULES						
<ul style="list-style-type: none"> - In discharge printing or crude silk the requirements for colour fastness to light and perspiration are not applicable. For requirements marked (**) half a point on the grade is permitted. Any deviation must be pointed out to Customer. - Requirements marked (*) are only applicable if set out in the care instructions. 						

10) Eco-toxicological performances
As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

TECHNICAL CARD N° 2

BLENDED SILK WOVEN FABRICS FOR OUTERWEAR



This Technical Card reports the guaranteed performance for outerwear in blended silk fabrics, in conformity with the standard UNI 11053. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m ²) -UNI EN 12127-:	-4%/+6%
2) Min. usable width (m) -UNI EN 1773-:	-1%

Physical-Mechanical performances: guaranteed minimum values

3) Breaking strength-elongation (N) UNI EN ISO 13934-1: <ul style="list-style-type: none"> >100N for area mass <40 g/m² >150N for area mass 41<x<100g/m² >200N for area mass x>100 g/m² 	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1: <ul style="list-style-type: none"> >40N for area mass <40 g/m² >70N for area mass 41<x<100g/m² >90N for area mass x>100 g/m²
5) Cross distortion with straight weft (%) BS 2819: <ul style="list-style-type: none"> <2,5% for visible weft fabrics <4% for no-visible weft fabrics 	6) Dimensional stability to steaming (%) DIN 53894-2: <ul style="list-style-type: none"> ±2% max for fabrics with yarn up to 600 tpm ±3% max for fabrics with yarn higher than 600 tpm

7) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*): ±2% max

8) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*): ±3% max

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 3-4-5-6, any deviation must be communicated to the client.
- For blending containing elastomer fibers requirements 2-6-7-8 are not applicable. Any deviation must be communicated to the client.
- Requirements marked (*) are only applicable if set out in the care instructions.

9) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	3	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04) (**)	3-4	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04) (**)	3-4	3	3	3	3	3
To water (UNI EN ISO 105-E01) (**)	3-4	3	3	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*)(**)	4	4	3-4	3	3-4	3
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	3-4	3-4	3	3	3	3
To hand washing (UNI 10994) (*)	3-4	3-4	3	3	3	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES:

- In discharge printing the requirements for fastness to light and perspiration are not applicable, any deviation must be communicated to the client
- For requirements marked (**) half a point on the grade is permitted for discharge printing in blending containing acetate or elastomer fibers.
- Requirements marked (*) are only applicable if set out in the recommended care instructions

10) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40°C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

This Technical Card reports the guaranteed performance for woven polyester fabrics for outerwear, in conformity with the standard UNI 11049. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m ²) -UNI EN 12127-:	-4%/+6%
2) Min. usable width (m) -UNI EN 1773-:	-1%

Physical-Mechanical performances: guaranteed minimum values

3) Breaking strength-elongation (N) UNI EN ISO 13934-1: <ul style="list-style-type: none"> ▪ >150N for area mass <40 g/m² ▪ >200N for area mass 41<x<80g/m² ▪ >300N for area mass 81<x<160g/m² ▪ >400N for area mass x>160 g/m² 	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1: <ul style="list-style-type: none"> ▪ >60N for area mass <40 g/m² ▪ >80N for area mass 41<x<80g/m² ▪ >110N for area mass 81<x<160g/m² ▪ >130N for area mass x>160 g/m²
5) Cross distortion with straight weft (%) BS 2819: <ul style="list-style-type: none"> ▪ <2,5% for visible weft fabrics ▪ <4% for no-visible weft fabrics 	6) Dimensional stability to steaming (%) DIN 53894-2: <ul style="list-style-type: none"> ▪ ±2% max for fabrics with yarn up to 600 tpm ▪ ±3% max for fabrics with yarn higher than 600 tpm
7) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*): ±2% max	
8) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*): ±2% max	

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 3-4-5-6, any deviation must be communicated to the client.
- Requirements marked (*) are only applicable if set out in the care instructions

9) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	3-4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	4	4	4	3-4	4	3
To alkaline perspiration (UNI EN ISO 105-E04)	4	4	4	3-4	4	3
To water (UNI EN ISO 105-E01)	4	4	4	3-4	4	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	4	4	4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	4	4	4	4	3-4
To hand washing (UNI 10994) (*)	4	4	4	4	4	3-4
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

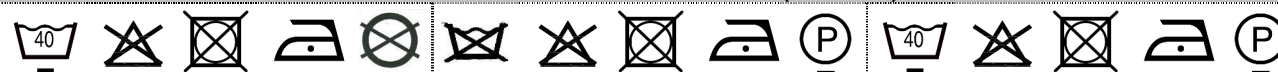
SPECIAL RULES :


- Requirements marked (*) are only applicable if set out in the recommended care instructions

10) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



 On the care instructions label the hand washing symbol can be a substitute for the 40°C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

TECHNICAL CARD N° 4

WOVEN FABRICS IN CELLULOSE FIBERS AND BLENDED FOR OUTERWEAR



This Technical Card reports the guaranteed performance for woven fabrics in artificial cellulose fibres and blended for outerwear in conformity with the standard UNI 11055. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m ²) -UNI EN 12127-:	-4%/+6%
2) Min. usable width (m) -UNI EN 1773-:	-1%

Physical-Mechanical performances: guaranteed minimum values

3) Breaking strength-elongation (N) UNI EN ISO 13934-1: <ul style="list-style-type: none"> >100N for area mass <80 g/m² >150N for area mass 81<x<140g/m² >200N for area mass x>140 g/m² 	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1: <ul style="list-style-type: none"> >40N for area mass <80 g/m² >70N for area mass 81<x<140g/m² >100N for area mass x>140 g/m²
5) Cross distortion with straight weft (%) BS 2819: <ul style="list-style-type: none"> <2,5% for visible weft fabrics <4% for no-visible weft fabrics 	6) Dimensional stability to steaming (%) DIN 53894-2: <ul style="list-style-type: none"> ±2% max for fabrics with yarn up to 600 tpm ±3% max for fabrics with yarn higher than 600 tpm
7) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*): ±2% max	
8) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*): ±5% max	

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 3-4-5-6, any deviation must be pointed out to the Customer.
- For blended containing elastic fibres requirements 2-6-7-8 are not applicable. Any deviation must be pointed out to the Customer
- Requirements marked (*) are only applicable if set out in the care instructions

9) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	3-4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04) (**)	4	4	3-4	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04) (**)	4	4	3-4	3	3	3
To water (UNI EN ISO 105-E01) (**)	4	4	3-4	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*)(**)	4	4	4	3-4	3-4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	3-4	3-4	3-4	3	3
To hand washing (UNI 10994) (*)	4	3-4	3-4	3-4	3	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES:

- For requirements marked (**) half a point on the grade is permitted for blended containing acetate fibre or elastomeric fibre
- Requirements marked (*) are only applicable if set out in the recommended care instructions

10) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40°C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

TECHNICAL CARD N° 5 WOVEN POLYAMIDE FABRICS FOR OUTERWEAR



This Technical Card reports the guaranteed performance for woven polyamide fabrics for outerwear, in conformity with the standard UNI 11111. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m ²) -UNI EN 12127-:	-4%/+6%
2) Min. usable width (m) -UNI EN 1773-:	-1%

Physical-Mechanical performances: guaranteed minimum values

3)) Breaking strength-elongation (N) UNI EN ISO 13934-1: <ul style="list-style-type: none"> ▪ >150N for area mass <40 g/m² ▪ >200N for area mass 41<x<80g/m² ▪ >300N for area mass 81<x<160g/m² ▪ >400N for area mass x>160 g/m² 	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1: <ul style="list-style-type: none"> ▪ >60N for area mass <40 g/m² ▪ >80N for area mass 41<x<80g/m² ▪ >110N for area mass 81<x<160g/m² ▪ >130N for area mass x>160 g/m²
5) Cross distortion with straight weft (%) BS 2819: <ul style="list-style-type: none"> ▪ <2,5% for visible weft fabrics ▪ <4% for non-visible weft fabrics 	6)) Dimensional stability to steaming (%) DIN 53894-2: <ul style="list-style-type: none"> ▪ ±2% max for fabrics with yarn up to 600 tpm ▪ ±3% max for fabrics with yarn higher than 600 tpm
7) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175(*): ±2% max	
8) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330(*): ±2% max	

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 3-4-5-6, any deviation must be pointed out to the Customer.
- Requirements marked (*) are only applicable if set out in the care instructions.

9) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3-4
To wet rubbing (UNI EN ISO 105-X12)	-	4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	4	3-4	3-4	3	3-4	3
To alkaline perspiration (UNI EN ISO 105-E04)	4	3-4	3-4	3	3-4	3
To water (UNI EN ISO 105-E01)	4	3-4	3-4	3	3-4	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	4	3-4	4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	4	3-4	3-4	3-4	3
To hand washing (UNI 10994) (*)	4	4	3-4	3-4	3-4	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES :

- Requirements marked (*) are only applicable if set out in the recommended care instructions

10) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40°C wash symbol.

In relation to present market trend, as regard the "ecological" professional cleaning, it is recommended the possibility to use the symbol "W" (professional wet cleaning), otherwise to symbol "P" (professional dry cleaning).

TECHNICAL CARD N° 6
WOVEN FABRICS IN BLENDED POLYESTER AND BLENDED
POLYAMIDE FOR OUTERWEAR



This Technical Card reports the guaranteed performance for woven fabrics in blended polyester and blended polyamide for outerwear, in conformity with the standard UNI 11112. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m ²) -UNI EN 12127-:	-4%/+6%
2) Min. usable width (m) -UNI EN 1773-:	-1%

Physical-Mechanical performances: guaranteed minimum values

3) Breaking strength-elongation (N) UNI EN ISO 13934-1: <ul style="list-style-type: none"> ▪ >100N for area mass <40 g/m² ▪ >150N for area mass 41<x<80g/m² ▪ >200N for area mass 81<x<160g/m² ▪ >250N for area mass x>160 g/m² 	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1: <ul style="list-style-type: none"> ▪ >40N for area mass <40 g/m² ▪ >70N for area mass 41<x<80g/m² ▪ >90N for area mass 81<x<160g/m² ▪ >110N for area mass x>160 g/m²
5) Cross distortion with straight weft (%) BS 2819: <ul style="list-style-type: none"> ▪ <2,5% for visible weft fabrics ▪ <4% for no-visible weft fabrics 	6) Dimensional stability to steaming (%) DIN 53894-2: <ul style="list-style-type: none"> ▪ ±3% for fabrics without elastomeric fibers
7) Dimensional stability to dry cleaning (%) UNI EN ISO 3175: <ul style="list-style-type: none"> ▪ ±3% for fabrics without elastomeric fibres 	8) Dimensional stability to washing (%) UNI EN ISO 5077; UNI EN ISO 6330(*): <ul style="list-style-type: none"> ▪ ±2% for fabrics without elastomeric fibres

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 3-4-5-6, any deviation must be pointed out to the Customer.
- For blended containing elastomeric fibres requirements 2-6-7-8 are not applicable. Any deviation must be pointed out to the Customer.
- Requirements marked (*) are only applicable if set out in the care instructions.

9) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04) (**)	4	3-4	3-4	3	3-4	3
To alkaline perspiration (UNI EN ISO 105-E04) (**)	4	3-4	3-4	3	3-4	3
To water (UNI EN ISO 105-E01) (**)	4	3-4	3-4	3	3-4	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	4	4	4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (*) (**)	4	4	3-4	3-4	3-4	3
To hand washing (UNI 10994) (*) (**)	4	4	3-4	3-4	3-4	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES:

- For requirements marked (**) half a point on the grade is permitted for blended containing acetate or elastomeric fibres
- Requirements marked (*) are only applicable if set out in the recommended care instructions

10) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40°C wash symbol

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

This Technical Card reports the guaranteed performance for woven silk tie fabrics, in conformity with the standard UNI 10883. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m ²) -UNI EN 12127-:	-4% +6%
2) Min. usable width (m) -UNI EN 1773-:	-2%

Physical-Mechanical performances: guaranteed minimum values

3) Breaking strength-elongation (N) UNI EN ISO 13934-1: ▪ >250N for area mass 50<x<100g/m ² ▪ >300N for area mass x>100 g/m ²	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1: ▪ >80N for area mass 50<x<100g/m ² ▪ >100N for area mass x>100 g/m ²
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5) Cross distortion with straight weft (%) - BS 2819:	<2,5%
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6) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*):	±2% max
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SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 3-4-5, any deviation must be communicated to the client.

7) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12) (**)	-	4	-	3-4	-	3-4
To wet rubbing (UNI EN ISO 105-X12) (**)	-	3-4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To water (UNI EN ISO 105-E01)	3-4	3	3	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	3-4	3-4	3-4	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES:

- In discharge printing the requirements for fastness to light and perspiration are not applicable, any deviation must be communicated to the client
- Requirements marked (*) are only applicable if set out in the recommended care instructions
- For requirements marked (**) half a point on the grade is permitted for discharge printing

8) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



In relation to present market trend, as regard the "ecological" professional cleaning, it is recommended the possibility to use the symbol "W" (professional wet cleaning), otherwise to symbol "P" (professional dry cleaning).

This Technical Card reports the guaranteed performance for woven blended silk fabrics for ties, in conformity with the standard UNI 11056. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared

1) Mass per unit area (g/m ²) -UNI EN 12127-:	-4% +6%
2) Min. usable width (m) -UNI EN 1773-:	-2%

Physical-Mechanical performances: guaranteed minimum values

3) Breaking strength-elongation (N) UNI EN ISO 13934-1: <ul style="list-style-type: none"> ▪ >100N for area mass x<40g/m² ▪ >150N for area mass 41<x<100g/m² ▪ >200N for area mass x>100 g/m² 	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1: <ul style="list-style-type: none"> ▪ >40N for area mass x<40g/m² ▪ >70N for area mass 41<x<100g/m² ▪ >90N for area mass x>100 g/m²
5) Cross distortion with straight weft (%) - BS 2819:	<2,5%
6) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*):	±2% max
7) Dimensional stability to washing (%) UNI EN ISO 5077 (*) - UNI EN ISO 6330:	±2% max

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 3-4-5, any deviation must be pointed out to the Customer.
- Requirements marked (*) are only applicable if set out in the care instructions

8) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	3	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To water (UNI EN ISO 105-E01)	3-4	3	3	3	3	3
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	3-4	3-4	3	3	3	3
To hand washing (UNI 10994) (*)	3-4	3-4	3	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	3-4	3	3-4	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

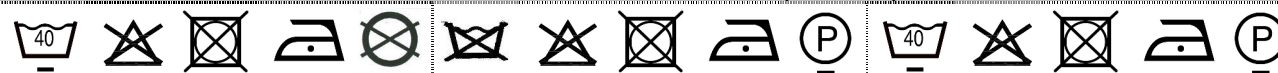
SPECIAL RULES:

- In discharge printing the requirements for fastness to light and perspiration are not applicable, any deviation must be pointed out to the Customer
- Requirements marked (*) are only applicable if set out in the recommended care instructions

9) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40°C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

TECHNICAL CARD N° 9
WOVEN POLYESTER FABRICS FOR TIES



This Technical Card reports the guaranteed performance for woven polyester fabrics for ties, in conformity with the standard UNI 11050. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m ²) -UNI EN 12127-:	-4% +6%
2) Min. usable width (m) -UNI EN 1773-:	-2%

Physical-Mechanical performances: guaranteed minimum values

3) Breaking strength-elongation (N) UNI EN ISO 13934-1: <ul style="list-style-type: none"> ▪ >250N for area mass x<100g/m² ▪ >300N for area mass x>100 g/m² 	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1: <ul style="list-style-type: none"> ▪ >70N for area mass x<100g/m² ▪ >100N for area mass x>100 g/m²
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5) Cross distortion with straight weft (%) - BS 2819:	<2,5%
6) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*):	±2% max
7) Dimensional stability to washing (%) - UNI EN ISO 6330 – UNI EN ISO 5077 (*):	±2% max

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 3-4-5, any deviation must be pointed out to the Customer.
- Requirements marked (*) are only applicable if set out in the care instructions.

8) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	4	4	4	3-4	4	3
To alkaline perspiration (UNI EN ISO 105-E04)	4	4	4	3-4	4	3
To water (UNI EN ISO 105-E01)	4	4	4	3-4	4	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	4	4	4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	4	4	4	4	3-4
To hand washing (UNI 10994) (*)	4	4	4	4	4	3-4
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES :

- Requirements marked (*) are only applicable if set out in the recommended care instructions

9) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

This Technical Card reports the guaranteed performance for silk foulards and scarves, in conformity with the standard UNI 10884. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m²) -UNI EN 12127-: -4%/+6%

Physical-Mechanical performances: guaranteed minimum values

2) Cross distortion with straight weft (%) BS 2819: ±2% max

3) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*): ±2% max

4) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*): ±3% max

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirement 2, any deviation must be pointed out to the Customer.

- Requirements marked (*) are only applicable if set out in the care instructions

5) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3-4
To wet rubbing (UNI EN ISO 105-X12)	-	3-4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To water (UNI EN ISO 105-E01)	3-4	3	3	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	3-4	3-4	3-4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	4	3	3	3	3
To hand washing (UNI 10994) (*)	4	4	3	3	3	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES :

- In discharge printing and crude silk the requirements for fastness to light are not applicable. Any deviation must be pointed out to the Customer

- Requirements marked (*) are only applicable if set out in the recommended care instructions

6) Measurements of ready-made garment (UNI EN 1773)

Permitted dimensional tolerance of the hemmed garment	For fabrics with low torsion yarn (up to 600 tpm)	For fabrics with high torsion yarn (up to 600 tpm)
	<ul style="list-style-type: none"> ▪ For side < 50 cm (+/- 2%) ▪ For side > 50 cm (+/- 1%) 	<ul style="list-style-type: none"> ▪ For side < 50 cm (+/- 3%) ▪ For side > 50 cm (+/- 2%)

Dimensional spread in both directions for square articles: ≤ 2%

7) Hemming*

Hemming points (in cm)	▪ minimum 4 (backstitch)	▪ minimum 3,5 (zigzag)
	▪ minimum 7 (over-lock)	▪ minimum 1,5 (hemming/blind)

(*) The requirement is not applicable to handmade hemming

8) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



In relation to present market trend, as regard the "ecological" professional cleaning, it is recommended the possibility to use the symbol "W" (professional wet cleaning), otherwise to symbol "P" (professional dry cleaning).

This Technical Card reports the guaranteed performance for silk blended foulards and scarves, in conformity with the standard UNI 11052. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m²) -UNI EN 12127: -4%/+6%

Physical-Mechanical performances: guaranteed minimum values

2) Cross distortion with straight weft (%) BS 2819: ±2% max

3) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*): ±2% max

4) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*): ±3% max

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirement 2, any deviation must be pointed out to the Customer.
- Requirements marked (*) are only applicable if set out in the care instructions

5) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12) (**) (***)	-	3/4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To water (UNI EN ISO 105-E01)	3-4	3	3	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	3-4	3	3	3
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	3-4	4	3	3-4	3
To hand washing (UNI 10994) (*)	4	3-4	4	3	3-4	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES:

- In discharge printing the requirement for fastness to light is not applicable.
- (*) Requirements marked are only applicable if set out in the recommended care instructions
- (**) For velvet and hair articles the requirement is not applicable. Any deviation must be pointed out to the Customer.
- (***) For fabrics with crude silk the requirement is not applicable.

6) Measurements of ready-made garment (UNI EN 1773)

Permitted dimensional tolerance of the hemmed garment

- For side < 50 cm (+/- 3%)
 - For side > 50 cm (+/- 2%)
- For particular shapes (e.g. creponne or with fancy effect) the requirement is not applicable. Any deviation must be pointed out to the Customer

Dimensional spread in both directions for square articles: ≤ 2%

7) Hemming*

Hemming points (in cm)	▪ minimum 4 (backstitch)	▪ minimum 3,5 (zigzag)
	▪ minimum 7 (over-lock)	▪ minimum 1,5 (hemming/blind)


(*) The requirement is not applicable to handmade hemming

8) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



 On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

This Technical Card reports the guaranteed performance for polyester foulards and scarves, in conformity with the standard UNI 11051. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m²) -UNI EN 12127-: -4%/+6%

Physical-Mechanical performances: guaranteed minimum values

2) Cross distortion with straight weft (%) BS 2819: ±2% max

3) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*): ±2% max

4) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*): ±3% max

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirement 2, any deviation must be pointed out to the Customer.
- Requirements marked (*) are only applicable if set out in the care instructions.

5) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	3-4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	4	4	4	3-4	4	3
To alkaline perspiration (UNI EN ISO 105-E04)	4	4	4	3-4	4	3
To water (UNI EN ISO 105-E01)	4	4	4	3-4	4	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	4	4	4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	4	4	4	4	3-4
To hand washing (UNI 10994) (*)	4	4	4	4	4	3-4
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES:

- Requirements marked (*) are only applicable if set out in the recommended care instructions

6) Measurements of ready-made garment (UNI EN 1773)

Permitted dimensional tolerance of the hemmed garment

- For side < 50 cm (+/- 3%)
 - For side > 50 cm (+/- 2%)
- For particular shapes (e.g. creponne or with fancy effect) the requirement is not applicable. Any deviation must be pointed out to the Customer

Dimensional spread in both directions for square articles: ≤ 2%

7) Hemming

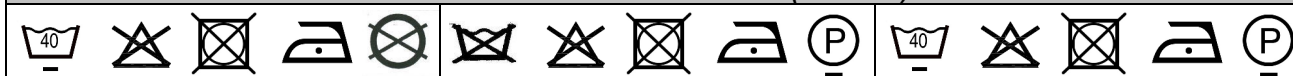
Hemming points (in cm)

- minimum 4 (backstitch)
- minimum 3,5 (zigzag)
- minimum 7 (over-lock)
- minimum 1,5 (hemming/blind)

8) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

This Technical Card reports the guaranteed performance for knitted elastic fabrics for beachwear, in conformity with the standard UNI 11054. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m ²) -UNI EN 12127-:	±7% for area mass <110 g/m ² ±5% for area mass >110 g/m ²
2) Min. usable width (m) -UNI EN 1773-:	±2%

Physical-Mechanical performances: guaranteed minimum values

3) Residual distortion (%) (after 1' recovery, 2 cycles at 100% extension) UNI EN 14704-1:	4) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330:
<ul style="list-style-type: none"> ▪ <20% for non-run knit fabrics ▪ <22% for circular-knit fabrics 	<ul style="list-style-type: none"> ▪ +2% -4% for non-run knit fabrics ▪ +3% -6% for circular-knit fabrics

5) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3-4	-	4	-	4	-
To dry rubbing (UNI EN ISO 105-X12) (**)	-	4	-	3-4	-	3-4
To wet rubbing (UNI EN ISO 105-X12) (**)	-	3-4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	4	3-4	4	3-4	3-4	3
To alkaline perspiration (UNI EN ISO 105-E04)	4	3-4	4	3-4	3-4	3
To industrial and domestic washing (UNI EN ISO 105-C06)	4	3-4	4	3-4	3-4	3
To hand washing (UNI 10994) (*)	4	4	4	3-4	3-4	3
To chlorine water (UNI EN ISO 105-E03) (50mg/l) (**)	3-4	-	3-4	-	3-4	-
To sea water (UNI EN ISO 105-E02) (**)	4	3-4	3-4	3-4	3-4	3
To water (UNI EN ISO 105-E01) (**)	4	3-4	3-4	3-4	3-4	3

SPECIAL RULES :

- In fluorescent colours fastness to light, acid and alkaline perspiration and chlorine water requirements are not applicables. Any deviation must be pointed out to the Customer.
- For requirements marked (**) one point less on the index is permitted for bright colours.

6) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

TECHNICAL CARD N° 14
KNITTED FABRICS IN CONTINUOUS YARN AND RELATED BLENDS
FOR OUTERWEAR



This Technical Card reports the guaranteed performance for knitted fabrics in continuous yarn and related blends for outdoor wear, in conformity with the standard UNI 11113. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m²) -UNI EN 12127-:	<ul style="list-style-type: none"> ▪ ±5% for non-elastic fabrics ▪ ±7% for elastic fabrics
2) Min. usable width (m) -UNI EN 1773-:	<ul style="list-style-type: none"> ▪ ±2% for non-elastic fabrics ▪ ±3% for elastic fabrics
3) Cross Distortion (%) BS 2819:	<ul style="list-style-type: none"> ▪ 5% max

Physical-Mechanical performances: guaranteed minimum values

4) Resistance to bursting (kPa) UNI EN ISO 13938-2:	5) Residual distortion (%) UNI EN 14704-1:
<ul style="list-style-type: none"> ▪ >220 kPa for elastic/non-elastic lace and tulle ▪ >320 kPa for other articles 	<ul style="list-style-type: none"> ▪ 22% max
6) Spirality (%) – only for circular knit - ISO 16322-2:	7) Dimensional Stability to Steaming (%) DIN 53894-2:
<ul style="list-style-type: none"> ▪ <5% for plain knit ▪ <2% for other articles 	<ul style="list-style-type: none"> ▪ ±3% max for non-elastic knitwear ▪ +3% -5% max for elastic knitwear
8) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*):	<ul style="list-style-type: none"> ▪ ±3% for non-elastic knitwear ▪ +3% -5% for elastic knitwear
9) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*):	<ul style="list-style-type: none"> ▪ +3% -6% for non-elastic knitwear ▪ +4% -7% for elastic knitwear

SPECIAL RULES:

- Requirements marked (*) are only applicable if set out in the care instructions

9) Colour fastness: guaranteed minimum values for all fabric compositions excluding silk and silk blends

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	3-4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04) (**)	4	4	3-4	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04) (**)	4	4	3-4	3	3	3
To water (UNI EN ISO 105-E01) (**)	4	4	3-4	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*) (**)	4	4	4	3-4	3-4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	3-4	3-4	3-4	3	3
To hand washing (UNI 10994) (*)	4	3-4	3-4	3-4	3	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES:

- Requirements marked (*) are only applicable if set out in the recommended care instructions.

- For requirements marked (**) half a point less on the grade is permitted for blended containing acetate or elastomer.

TECHNICAL CARD N° 14
KNITTED FABRICS IN CONTINUOUS YARN AND RELATED BLENDS
FOR OUTERWEAR



10) Colour fastness: guaranteed minimum values –Silk and silk blends

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	3	-	3	-	3
To acidic perspiration (UNI EN ISO 105-E04) (**)	3-4	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04) (**)	3-4	3	3	3	3	3
To water (UNI EN ISO 105-E01) (**)	3-4	3	3	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*) (**)	4	4	3-4	3	3-4	3
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	3-4	3-4	3	3	3	3
To hand washing (UNI 10994) (*)	3-4	3-4	3	3	3	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

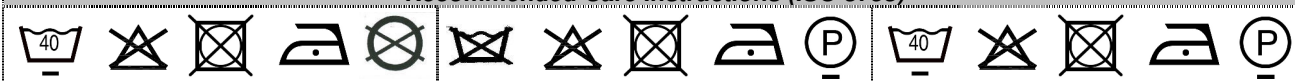
SPECIAL RULES :


- Requirements marked (*) are only applicable if set out in the recommended care instructions
- In requirements marked (**) half a point less on the grade is permitted for blended containing acetate or elastomer.

11)) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



 On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

TECHNICAL CARD N° 15
WOVEN FABRICS FOR UPHOLSTERY



This Technical Card reports the guaranteed performance for fabrics for upholstery, in conformity with the standard UNI EN 14465. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Resistance to tearing (N) - UNI EN ISO 13937-3:	>15 N
2) Seam slippage resistance (mm) - UNI EN ISO 13936-2:	≤ 8 mm
3) Pilling resistance – UNI EN ISO 12945-2:	> Index 3
4) Abrasion resistance – UNI EN ISO 12947-2 (**)	>12000 turns
5) Dimensional stability to simulated hand washing (%) – UNI EN ISO 6330:	± 3 % max
6) Dimensional stability to dry cleaning (%) – UNI EN ISO 3175 (*):	± 2 % max
7) Dimensional stability to domestic washing and drying (%) – UNI EN ISO 6330 (*):	± 3 % max

SPECIAL RULES:

- Requirements marked (*) are only applicable if set out in the care instructions
- Requirements marked (**) for silk fabrics, silk blends, warp in cellulosic continuous yarn and for particular shapes, are not applicable. Any deviation must be pointed out to the Customer.

8) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	4	-	4-5	-	5	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	3-4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	3	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04)	3	3	3	3	3	3
To water (UNI EN ISO 105-E01)	3-4	3	3-4	3	3-4	3
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	3-4	4	3	3-4	3
To 40° C soap washing (UNI EN ISO 105-C10)(A1) (*)	4	3-4	4	3	3-4	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	4	4	4	3-4

SPECIAL RULES :

- Requirements marked (*) are only applicable if set out in the recommended care instructions.

9) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

This Technical Card reports the guaranteed performance for woven fabrics for interior curtains, in conformity with the standard UNI 11110. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m²) -UNI EN 12127:- -4%/+6%

2) Min. usable width (m) -UNI EN 1773: -1%

Physical-Mechanical performances: guaranteed minimum values

3) Breaking strength-elongation (N)

UNI EN ISO 13934-1:

- >100N for area mass <40 g/m²
- >150N for area mass 41<x<100g/m²
- >300N for area mass x>100 g/m²

4) Cross distortion with straight weft (%)

BS 2819:

- ≤ 2% for plain fabric
- ≤ 1% for weft stripe

5) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*): ≤ 1%

6) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330(*): ≤ 1.5%

SPECIAL RULES:

Requirements marked (*) are only applicable if set out in the care instructions

7) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	4-5	-	4-5	-	5	-
To industrial and domestic washing (UNI EN ISO 105-C06) (*) (**)	4	4	4	3-4	3-4	3
To acid perspiration (UNI EN ISO 105-E04)	3	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04)	3	3	3	3	3	3
To water (UNI EN ISO 105-E01)	3-4	3	3-4	3	3-4	3
To hand washing (UNI 10994) (*) (**)	4	4	4	3-4	3-4	3
To dry cleaning (UNI EN ISO 105-D01) (*) (**)	4	4	4	3-4	3-4	3-4
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES :

- Requirements marked (*) are only applicable if set out in the recommended care instructions

- Fabrics with requirements marked (**) must not show any structural modifications or alterations following washing and ironing

8) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

This Technical Card reports the guaranteed performance for blended polyester and blended polyamide foulards and scarves, in conformity with the standard UNI 11051. It details the regulations for certain types of articles and/or processes.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m²) -UNI EN 12127:- -4%/+6%

Physical-Mechanical performances: guaranteed minimum values

2) Cross distortion with straight weft (%) BS 2819: ± 2% max
 3) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*): ± 2% max
 4) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*): ± 3% max

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirement 2, any deviation must be pointed out to the Customer.
- Requirements marked (*) are only applicable if set out in the care instructions

5) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	3	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	4	3-4	3-4	3	3-4	3
To alkaline perspiration (UNI EN ISO 105-E04)	4	3-4	3-4	3	3-4	3
To water (UNI EN ISO 105-E01)	4	3-4	3-4	3-4	3	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	3-4	3-4	3-4	3
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	3-4	3-4	3	3	3	3
To hand washing (UNI 10994) (*)	3-4	3-4	3	3	3	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES :

- In discharge printing the requirement for fastness to light is not applicable. Any deviation must be communicated to the client.
- Requirements marked (*) are only applicable if set out in the recommended care instructions

6) Measurements of ready-made garment (UNI EN 1773)

Permitted dimensional tolerance of the hemmed garment

- For side < 50 cm (+/- 3%)
- For side > 50 cm (+/- 2%)

For particular shapes (e.g. creponne or with fancy effect) the requirement is not applicable. Any deviation must be communicated to the client

Dimensional spread in both directions for square articles: ≤ 2%

7) Hemming

Hemming points (in cm)


- minimum 4 (backstitch)
- minimum 3,5 (zigzag)
- minimum 7 (over-lock)
- minimum 1,5 (hemming/blind)

8) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



 On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

TECHNICAL CARD N° 18
FOULARDS AND SCARVES (OTHER FIBER COMPOSITION)



This Technical Card is applicable to foulards and scarves of any fiber composition not already provided for in cards numbers 10-11-12 and 17.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m²) -UNI EN 12127-: -4% +6%

Physical-Mechanical performances: guaranteed minimum values

2) Cross distortion with straight weft (%) BS 2819: +/- 2% max

3) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*): +/- 2% max

4) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*): +/- 3% max

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirement 2, any deviation must be pointed out to the Customer.
- Requirements marked (*) are only applicable if set out in the care instructions.

5) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02) (***)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3	-	3
To wet rubbing (UNI EN ISO 105-X12) (**)	-	3	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	3	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04)	3	3	3	3	3	3
To water (UNI EN ISO 105-E01)	3	3	3	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	3-4	3-4	3-4	3
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	3-4	4	3-4	3-4	3
To hand washing (UNI 10994) (*)	4	3-4	4	3-4	3-4	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES:

- (*) Requirements marked are only applicable if set out in the recommended care instructions
- (**) For velvet and hair articles the requirement is not applicable.
- (***) In discharge printing the requirement for fastness to light is not applicable. Any deviation must be pointed

6) Measurements of ready-made garment (UNI EN 1773)

Permitted dimensional tolerance of the hemmed garment

- For side < 50 cm (+/- 3%)
- For side > 50 cm (+/- 2%)

For particular shapes (e.g. creponne or with fancy effect) the requirement is not applicable. Any deviation must be communicated to the client.

Dimensional spread in both directions for square articles: ≤ 2%

7) Hemming (*)

Hemming points (in cm)

- minimum 4 (backstitch)
- minimum 3,5 (zigzag)
- minimum 7 (over-lock)
- minimum 1,5 (hemming/blind)

(*) The requirement is not applicable to handmade hemming

8) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



In relation to present market trend, as regard the "ecological" professional cleaning, it is recommended the possibility to use the symbol "W" (professional wet cleaning), otherwise to symbol "P" (professional dry cleaning).

TECHNICAL CARD N° 19
WOVEN FABRICS FOR TIES (OTHER FIBER COMPOSITION)



This Technical Card is applicable to woven fabrics for ties of any fiber composition not already provided for in cards number 7-8 and 9.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m²) -UNI EN 12127:	+4% -6%
2) Min. usable width (m) -UNI EN 1773:	-2%

Physical-Mechanical performances: guaranteed minimum values

3) Breaking strength-elongation (N) UNI EN ISO 13934-1: <ul style="list-style-type: none"> ▪ >150N for area mass x<100g/m² ▪ >200N for area mass x>100 g/m² 	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1: <ul style="list-style-type: none"> ▪ >70N for area mass x<100g/m² ▪ >100N for area mass x>100 g/m²
5) Cross distortion with straight weft (%) - BS 2819:	<2,5%
6) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*):	±2% max
7) Dimensional stability to washing (%) - UNI EN ISO 6330 – UNI EN ISO 5077 (*):	±2% max

SPECIAL RULES:

- When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 3-4-5, any deviation must be pointed out to the Customer.
- Requirements marked (*) are only applicable if set out in the care instructions.

8) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12)	-	4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04)	3-4	3	3	3	3	3
To water (UNI EN ISO 105-E01)	3-4	3	3	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	3-4	3	3-4	3
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	3-4	3-4	3	3	3	3
To hand washing (UNI 10994) (*)	3-4	3-4	3	3	3	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

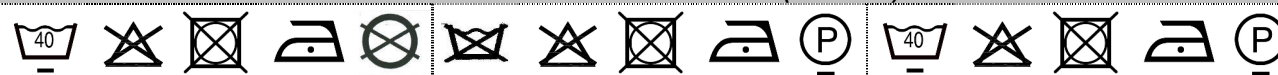
SPECIAL RULES:

- Requirements marked (*) are only applicable if set out in the care instructions.

9) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

TECHNICAL CARD N° 20
WOVEN FABRICS IN DISCONTINUOUS YARN
FOR OUTERWEAR






































This Technical Card is applicable to woven with the following composition: cotton and cellulosic fibres, sintetic and blended sintetic, wool and blended wool.

Structural performances: guaranteed tolerance in respect to declared value	
1) Mass per unit area (g/m²) -UNI EN 12127:	-4% +6%
2) Min. usable width (m) -UNI EN 1773:	-1%
Physical-Mechanical performances: guaranteed minimum values	
3) Breaking strength-elongation (N) UNI EN ISO 13934-1:	4) Seam slippage resistance (N) – 6mm – UNI EN ISO 13936-1:
<ul style="list-style-type: none"> ▪ > 100 N for area mass <80 g/m² ▪ > 150 N for area mass 81<x<140g/m² ▪ > 200 N for area mass x>140 g/m² 	<ul style="list-style-type: none"> ▪ > 40 N for area mass <80 g/m² ▪ > 70 N for area mass 81<x<140g/m² ▪ > 100 N for area mass x>140 g/m²
5) Cross distortion with straight weft (%) BS 2819:	6) Dimensional stability to steaming (%) DIN 53894-2:
<ul style="list-style-type: none"> ▪ < 2,5% for visible weft fabrics ▪ < 4 % for no-visible weft fabrics 	<ul style="list-style-type: none"> ▪ ± 3% max
7) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*):	± 2% max
8) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*):	± 4% max
9) Pilling resistance (Martindale) UNI EN ISO 12945-2 (**):	grade 3
SPECIAL RULES:	
When the shape or weight of the article does not permit the acquisition of the minimum values required in the norms for requirements 4-5-6-9, any deviation must be pointed out to the Customer.	
For blended containing elastomeric fibres requirements 2-6-7-8 are not applicable. Any deviation must be pointed out to the Customer.	
(*) Requirements marked are only applicable if set out in the care instructions	
(**) A conformity declaration of production respecting sampling is permitted without the expression of grade	

10) Colour fastness: guaranteed minimum values						
	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02) (*)	3	-	3-4	-	4	-
To dry rubbing (UNI EN ISO 105-X12) (**)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12) (**)	-	4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04) (***)	4	4	4	3	3-4	3
To alkaline perspiration (UNI EN ISO 105-E04) (***)	4	4	4	3	3-4	3
To water (UNI EN ISO 105-E01) (***)	4	4	4	3	3-4	3
To dry cleaning (UNI EN ISO 105-D01) (♦) (**)	4	4	4	3-4	3-4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (♦)	4	4	4	3-4	3-4	3
To hand washing (UNI 10994) (♦)	4	4	4	3-4	3-4	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-
SPECIAL RULES:						
(*) For light colours with a shade depth ≤ 1/12 of standard shade depth, a point on the grade is permitted						
(**) For pigment or special effects a conformity declaration of production respecting sampling or respecting technical card is also permitted						
(***) For wool and blended containing acetate or elastomer fibers half a point on the grade is permitted						
Requirements marked (♦) are only applicable if set out in the recommended care instructions						

11) Eco-toxicological performances
As indicated in Technical Card nr. 24

<i>Recommended Care Instructions (ISO 3758)</i>														
COTTON / CELLULOSIC FIBERS AND BLENDED														
														
CHEMICAL FIBERS AND BLENDED														
														
WOOL AND BLENDED														
														



On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

TECHNICAL CARD N° 21
KNITTED FABRICS IN DISCONTINUOUS YARN
FOR OUTERWEAR



This Technical Card is applicable to knitted fabrics for outerwear of different fiber composition: cotton and cellulosic fibers, synthetic and blended synthetic, wool and blended wool.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area g/m² -UNI EN 12127:	<ul style="list-style-type: none"> ▪ ± 5% for non-elastic fabrics ▪ ± 7% for elastic fabrics
2) Min. usable width (m) -UNI EN 1773:	<ul style="list-style-type: none"> ▪ ± 2% for non-elastic fabrics ▪ ± 4% for elastic fabrics
3) Cross Distortion (%) BS 2819:	<ul style="list-style-type: none"> ▪ 5% max

Physical-Mechanical performances: guaranteed minimum values

4) Resistance to bursting (kPa) – area of the test 10 cm² - UNI EN ISO 13938-2:	5) Residual extension (%) after 30' UNI EN 14704-1 – (2 cycles)
<ul style="list-style-type: none"> ▪ >250 kPa (not applicable for laces) 	load 1,8 kgf (**): <ul style="list-style-type: none"> ▪ 15% max
6) Spirality (%) – only for circular knit - ISO 16322-2:	7) Dimensional Stability to Steaming (%) DIN 53894-2:
<ul style="list-style-type: none"> ▪ < 5% for plain knit ▪ < 2% for other articles 	<ul style="list-style-type: none"> ▪ ± 3% max for non-elastic fabrics ▪ +3% -5% max for elastic fabrics
8) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*):	<ul style="list-style-type: none"> ▪ ± 3% for non-elastic knitwear ▪ +3 -5% for elastic knitwear
9) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*):	<ul style="list-style-type: none"> ▪ +2 -6% for non-elastic knitwear ▪ +3 -7% for elastic knitwear
10) Pilling resistance (Pilling Box) UNI EN ISO 12945-1 (18000 turns) (**):	index 3

SPECIAL RULES:

Requirements marked (*) are only applicable if set out in the care instructions

(**) A conformity declaration of production respecting sampling is permitted without the expression of numeric grade

Requirements marked (***) is not applicable for wool and blended wool fabrics

11) Colour fastness: guaranteed minimum values

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3	-	3-4	-	4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3
To wet rubbing (UNI EN ISO 105-X12) (***)	-	4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04) (**)	4	4	3-4	3	3	3
To alkaline perspiration (UNI EN ISO 105-E04) (**)	4	4	3-4	3	3	3
To water (UNI EN ISO 105-E01) (**)	4	4	3-4	3	3	3
To dry cleaning (UNI EN ISO 105-D01) (*) (**)	4	4	4	3-4	3-4	3-4
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	4	4	3-4	3-4	3
To hand washing (UNI 10994) (*)	4	4	4	3-4	3-4	3
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES :

- Requirements marked (*) are only applicable if set out in the recommended care instructions

(**) For blended containing acetate or elastomer fibers half a point on the grade is permitted































(***) For wool and blended wool half a point on the grade is permitted


- In discharge printing for wool and blended wool fastness to light and perspiration requirements are not applicable.

Any deviation must be pointed out to the Customer.

12) Eco-toxicological performances

As indicated in Technical Card nr. 24

<i>Recommended Care Instructions (ISO 3758)</i>										
COTTON / CELLULOSIC FIBERS AND BLENDED										
										
CHEMICAL FIBERS AND BLENDED										
										
WOOL AND BLENDED										
										

 On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

This Technical Card is applicable to woven fabrics for shirts of cotton and blended.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m ²) - UNI EN 12127:	+/- 3%
2) Min. usable width (m) - UNI EN 1773:	-1%

Physical-Mechanical performances: guaranteed minimum values

3) Breaking strength-elongation (N) UNI EN ISO 13934-1: <ul style="list-style-type: none"> ▪ > 200 N for area mass <100 g/m² ▪ > 250 N for area mass 100<x<130 g/m² ▪ > 300 N for area mass x>130 g/m² 	4) Seam slippage resistance (N) – 3mm – UNI EN ISO 13936-1: <ul style="list-style-type: none"> ▪ > 50 N for area mass <100 g/m² ▪ > 70 N for area mass 100<x<130g/m² ▪ > 100 N for area mass x>130 g/m²
5) Cross distortion with straight weft (%) BS 2819: <ul style="list-style-type: none"> ▪ < 2 % for fabrics with geometric design ▪ < 3 % for plain coloured/printed fabrics 	6) Dimensional stability to steaming (%)DIN 53894-2 (*) (**): ± 2% max
7) Dimensional stability to dry cleaning (%) - UNI EN ISO 3175 (*) (**): <ul style="list-style-type: none"> ▪ ± 2% max 	8) Dimensional stability to washing (%) – UNI EN ISO 5077; UNI EN ISO 6330 (*) (**): <ul style="list-style-type: none"> ▪ ± 2% max for classic man shirts ▪ ± 3% max for casual and woman shirts

SPECIAL RULES:

(*) for articles with particular shape or composition the requirement is not applicable. Any deviation must be communicated to the client

(**) for blended containing elastomeric fibers a conformity declaration of production respecting sampling or respecting Technical Card is permitted

9) Colour fastness: guaranteed minimum values

	Yarn dyeing				Piece dyeing /Printing			
	Light Colours		Medium /Dark Colours		Light Colours		Medium/Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02)	3-4	-	4	-	3 (*)	-	4 (*)	-
To dry rubbing (UNI EN ISO 105-X12) (**)	-	4-5	-	4	-	4-5	-	4
To wet rubbing (UNI EN ISO 105-X12) (**)	-	4	-	3	-	4	-	3
To acid perspiration (UNI EN ISO 105-E04)	4	4	4	4	4	3-4	4	3
To alkaline perspiration (UNI EN ISO 105-E04)	4	4	4	4	4	3-4	4	3
To water (UNI EN ISO 105-E01)	4	4	4	4	4	3-4	4	3
To dry cleaning (UNI EN ISO 105-D01)	3-4	4	3-4	4	4	4	4	3
To industrial and domestic washing (UNI EN ISO 105-C06)	4	4	4	4	4	4	4	3-4
To hand washing (UNI 10994)	4	4	4	4	4	4	4	3-4
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-	4	-

SPECIAL RULES :

(*) For brilliant colours or shade depth ≤ 1/12 of standard shade dept, a point on the grade is permitted


(**) For pigment printing half a point on the grade is permitted

10) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



 On the care instructions label the hand washing symbol can be a substitute for the 40° C wash symbol.

In relation to present market trend, as regard the “ecological” professional cleaning, it is recommended the possibility to use the symbol “W” (professional wet cleaning), otherwise to symbol “P” (professional dry cleaning).

This Technical Card is applicable to woven and knitted fabrics for underwear of all fiber composition.

Structural performances: guaranteed tolerance in respect to declared value

1) Mass per unit area (g/m²) -UNI EN 12127:	<ul style="list-style-type: none"> ▪ -4% +6% for woven fabrics ▪ ±5% for knitted fabrics ▪ ±7% for knitted fabrics with elastomeric fiber ▪ ±10% for knitted fabrics with elastomeric fiber of mass per unit area <100 g/m²
2) Min. usable width (m) -UNI EN 1773:	<ul style="list-style-type: none"> ▪ -1% for woven fabrics ▪ ±3% for knitted fabrics
3) (*) Residual extension (%) after 30' UNI EN 14704-1 – 2 cycles - load 1,8 kgf (**):	<ul style="list-style-type: none"> ▪ <6% for woven fabrics with elastomeric fiber ▪ <10% for knitted fabrics with elastomeric fiber of mass per unit area >100g/m²
(*) A conformity declaration of production respecting sampling is permitted without the expression of grade	
(**) For knitted fabrics with elastomeric fiber of mass per unit area <100 g/m ² the tolerance admitted is <20%	

Physical-Mechanical performances: guaranteed minimum values

4) Cross distortion (%) BS 2819:	<ul style="list-style-type: none"> ▪ <2.5% for woven fabrics ▪ <5% for knitted fabrics
5) (*) Dimensional stability to washing (%) – UNI EN ISO 5077 - UNI EN ISO 6330:	<ul style="list-style-type: none"> ▪ -3% +1% for woven fabrics ▪ -6% +1% for knitted non elastic fabrics ▪ -7% +1% for knitted elastic fabrics
6) Dimensional stability to dry cleaning (%) UNI EN ISO 3175:	-2% +1%
(*) A conformity declaration of production respecting sampling is permitted without the expression of grade	

7) Colour fastness: guaranteed minimum values for all fabric compositions excluding silk and silk blends

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light (UNI EN ISO 105-B02) (*)	3	-	3-4	-	4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	4	-	3-4
To wet rubbing (UNI EN ISO 105-X12)	-	4-5	-	4	-	3-4
To acid perspiration (UNI EN ISO 105-E04) (*)	4	4	4	3-4	4	3
To alkaline perspiration (UNI EN ISO 105-E04) (*)	4	4	4	3-4	4	3
To water (UNI EN ISO 105-E01) (*)	4	4	4	3-4	4	3
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	4	4	3-4	3-4	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	4	4	4	3-4
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES :

- For blends containing acetate or elastomer fibers or for brilliant colours half a point less on the grade is permitted for requirements marked (*). Any deviation must be pointed out to the Customer.

8) Colour fastness: guaranteed minimum values –Silk and silk blends

	Light Colours		Medium Colours		Dark Colours	
	Colour Change	Staining	Colour Change	Staining	Colour Change	Staining
To light ((UNI EN ISO 105-B02) (*)	3	-	3-4	-	3-4	-
To dry rubbing (UNI EN ISO 105-X12)	-	4	-	3-4	-	3-4
To wet rubbing (UNI EN ISO 105-X12)	-	3-4	-	3	-	3
To acid perspiration (UNI EN ISO 105-E04) (*)	4	3-4	3-4	3-4	3-4	3
To alkaline perspiration (UNI EN ISO 105-E04) (*)	4	3-4	3-4	3-4	3-4	3
To water (UNI EN ISO 105-E01) (*)	4	3-4	3-4	3-4	3-4	3
To industrial and domestic washing (UNI EN ISO 105-C06) (*)	4	4	3-4	3	3-4	3
To dry cleaning (UNI EN ISO 105-D01) (*)	4	4	3-4	3-4	3-4	3-4
To ironing (UNI EN ISO 105-X11)	4	-	4	-	4	-

SPECIAL RULES:

- For blends containing acetate or elastomeric fibers or for brilliant colours half a point less on the grade is permitted for requirements marked (*). Any deviation must be pointed out to the Customer.

9) Eco-toxicological performances

As indicated in Technical Card nr. 24

Recommended Care Instructions (ISO 3758)



Substances	CAS-Number	Notes	Limits for formulations / chemicals used in processes (mg/kg)	Limits for textiles (mg/kg)	Test Methods
Alkylphenols and alkylphenols ethoxylates					
Alkylphenols: nonylphenol octylphenol	various various	NP OP	100 (sum)	5	ISO 21084
Alkylphenols ethoxylates: nonylphenol ethoxylate octylphenol ethoxylate	various various	NPEO OPEO	250 (sum)	25 (sum)	ISO 18254-1
Chlorinated Benzenes and Toluenes					
Chlorinated Toluenes Chlorinated Benzenes Annex I	various (see annex)	chlorinated carriers	200 (sum) (tetrachlorotoluenes e trichlorotoluenes each with limit of 10 ppm)	1 (sum)	ISO 17137
Benzyl chloride	100-44-7	carrier, alogenated solvent	50 (100 for dyes)	1	
Dyestuffs					
Azo-dyes that may release aromatic amines Annex II	various (see annex)	arylamine	150 (for each amine)	20 (for each amine)	EN 14362-1 e 3
Aniline (free)	62-53-3		500 (2000 for indigo)	20 (50 for indigo)	EN 14362-1 without reductive cleavage (except for indigo)
Quinoline	91-22-5		1000	20	GC/MS ref. ISO 17137

Substances	CAS-Number	Notes	Limits for formulations / chemicals used in processes (mg/kg)	Limits for textiles (mg/kg)	Test Methods
Blue Dyestuff (Blue navy)	Component 1: 118685-33-9	Index number 611-070-002-2 Component 1: C39H23ClCrN7O12S.2Na disodium (6-(4-anisidine)- 3-sulphonate-2-(3,5-dinitro-2- oxidephenylazo)-1- naphtholate)(1-(5-chloro-2- oxidephenylazo)-2- naphtholate)chromate(1-); Component 2: C46H30CrN10O20S2.3Na trisodium bis(6-(4-anisidine)- 3- sulphonate-2-(3,5-dinitro-2- oxidephenylazo)-1- naphtholate)chromate(1-)	not used	not detectable (10 mg/kg)	ref. DIN 54231 ISO 16373-3
Dyestuffs					
Carcinogenic Annex III	various (see annex)		250 (for each dyestuff)	not detectable (1 - 50 mg/kg)	ref. DIN 54231 ISO 16373-2 e 3
Allergenic Annex IV	various (see annex)	disperse dyestuffs	250 (for each dyestuff)	not detectable (5-50 mg/kg)	DIN 54231 ISO 16373-2
Chlorophenols					
Pentachlorophenol and its salts	87-86-5	PCP	5	non detectable (0,05 mg/kg per group of substances)	LMBG 82.02-8 UNI 11057
Tetrachlorophenols Annex V	various (see annex)	TeCP	15 (sum)		
Trichlorophenols Annex V	various (see annex)	TCP o TrCP	50 (sum)		
Dichlorophenols Annex V	various (see annex)	DCP			
Monochlorophenols Annex V	various (see annex)	MCP			
Other biocides					
o-phenylphenol and salts	90-43-7	OPP	200	25	ref. UNI 11057 ref. LMBG 82.02-8 EN 17134
Dimethylfumarate	624-49-7	DMFu	10	0,1	ref. ISO 16186 EN 17130
Triclosan	3380-34-5		250	1	ISO 22992-2

Substances	CAS-Number	Notes	Limits for formulations / chemicals used in processes (mg/kg)	Limits for textiles (mg/kg)	Test Methods
Flame retardants					
Organohalogenated and phosphorated flame-retardants + inorganic flame-retardants Annex VI	various (see annex)	---	not used (250 sum9)	not detectable (1, 5, 10 mg/kg)	ISO 17881-2 ISO 17881-1 AAS o ICP
Short-Chain Chlorinated paraffins- (C10-13)	85535-84-8	SCCP	50	50 (sum)	ISO 22818 ISO 18219 (leather)
Medium-Chain Chlorinated paraffins- C14-C17	85535-85-9	MCCP	250		ISO 22818 ISO 18219 (leather)
Solvents					
Alogenated Solvents Annex VII	various (see annex))	---	5	not detectable	Ref. EPA methods
Tetrachloroethylene	127-18-4	perchloroethylene		Permitted for use only in closed loop control systems and if emission and exposure control measures are ensured Otherwise: 5	GC/MS
Benzylchloride	100-44-7	carrier, alogenated solvent	50 100 fo dyes	1	ISO 17137
1-methyl-2-pyrrolidone	872-50-4	NMP	1000	300	HS-GC-MS ref. ISO 19070
1-ethyl-2-pyrrolidone	2687-91-4	NEP	1000	300	HS-GC-MS ref. ISO 19070
N,N'-dimethylformamide	68-12-2	DMF	1000	200	ISO/TS 16189 EN 17131 HS-GC-MS
N,N'-dimethylacetamide	127-19-5	DMAc	1000	300	HS-GC-MS
Formamide	75-12-7	---	500	20	
VOCs (Volatile Organic Compounds)					
Benzene	71-43-2		50	non detectable (1 mg/kg)	HS-GC-MS
Xylene (all isomers)	1330-20-7		500	20	
o-cresol	95-48-7		500		
p-cresol	106-44-5		500		
m-cresol	108-39-4		500		

Substances	CAS-Number	Notes	Limits for formulations / chemicals used in processes (mg/kg)	Limits for textiles (mg/kg)	Test Methods
Organotin compounds					
Dibutyltin	14488-53-0, included 683-18-1	DBT	20	1 (per substance)	ISO/TS 16179 (leather) ISO 22744-1
Other Organotin Compounds, mono-, di- and tri-derivatives Annex VIII	various (see annex)	TBT, DBT, TPhT etc.. (see annex)	5 (for each substance)		
Other Organotin Compounds, tetra-derivatives and others Annex VIII	various (see annex)	TeBT, TeEt, TeOt, TCyHT, TPT	1 (for each substance)		
Polycyclic Aromatic Hydrocarbon (PAH)					
Benzo[a]pirene	50-32-8	BaP	20	1	AfPS GS 2014:01 ISO/TS 16190 (leather) EN 17132 (textiles)
other PAHs All. IX	various (see annex)		200 (sum)	1	
Perfluorinated Compounds (PFCs)					
Poly and perfluorinated compounds	PFAS		no use of fluorocarbon resins	not detectable	----
Phthalates					
Phthalates Annex X	various (see annex)	various (see annex)	250 (sum)	200 (sum)	CPSC-CH-C-1001-09.3 ISO 14389
Metals					
total metals:					
Antimony	7440-36-0	Sb	50 in dyes 250 in pigments	260 (polyester) 10 (other)	EN 16711-1
Silver	7440-22-4	Ag	100 in dyes	-	ref. EN 16711-1
Arsenic	7440-38-2	As	50	not detectable (1 mg/kg)	EN 16711-1
Cadmium	7440-43-9	Cd	20 (50 in pigments)	40	EN 1122 EN 16711-1

<i>Substances</i>	<i>CAS-Number</i>	<i>Notes</i>	<i>Limits for formulations / chemicals used in processes (mg/kg)</i>	<i>Limits for textiles (mg/kg)</i>	<i>Test Methods</i>
Cobalt	7440-78-4	Co	500 in dyes (not applicable to pre- metallized dyes)	-	ref. EN 16711-1
Chromium VI	18540-29-9	Cr VI	10	not detectable (3 mg/kg)	ref. ISO 17075 -1 (leather)
Total Chromium	7440-47-3	Cr	100 in dyes and pigments (not applicable to pre- metallized dyes)	-	ref. EN 16711-1
Barium	7440-39-3	Ba	100 in dyes and pigments	-	ref. EN 16711-1
Mercury	7439-97-6	Hg	4 (25 in pigments)	not detectable (0,1 mg/kg)	ref. EN 16711-1
Nickel	7440-02-0	Ni	250 in dyes and pigments (not applicable to pre- metallized dyes)	-	ref. EN 16711-1
Lead	7439-92-1	Pb	100	40	CPSC-CH-E-1002-08, EN 16711-1
Copper	7440-50-8	Cu	250 in dyes and pigments (not applicable to pre- metallized dyes)	-	ref. EN 16711-1
Selenium	7782-49-2	Se	20 in dyes (100 in pigments)	-	ref. EN 16711-1
Tin	7440-31-5	Sn	250 in dyes	-	ref. EN 16711-1

Substances	CAS-Number	Notes	Limits for formulations / chemicals used in processes (mg/kg)	Limits for textiles (mg/kg)	Test Methods
Extractable by artificial acid perspiration metals:					
Antimony	7440-36-0	Sb	n.a.	30	EN 16711-2
Arsenic	7440-38-2	As	n.a.	0,2	
Barium	7440-38-2	Ba	n.a.	1000	
Cadmium	7440-43-9	Cd	n.a.	0,1	
Cobalt	7440-48-4	Co	n.a.	4	
Chromium	7440-47-3	Cr	n.a.	4 (pre-metallized dyestuffs) 2 (other cases)	
Chromium VI	18540-29-9	Cr VI	n.a.	not detectable	
Mercury	7439-97-6	Hg	n.a.	0,02	
Nickel	7440-02-0	Ni	n.a.	1	
Lead	7439-92-1	Pb	n.a.	1	
Selenium	7782-49-2	Se	n.a.	100	
Copper	7440-50-8	Cu	n.a.	25	
Pesticides					
Pesticides	various (see annex)	---	n.a.	0,5 mg/kg	ref. EPA methods
Annex XI					
Permethrin	52645-53-1 and others	---	250	1 mg/kg	
Glycols					
bis (2-methoxyethyl) ether	111-96-6		50	10	GC/MS LC/MS
2-ethoxyethanol	110-80-5		50	10	
2-ethoxyethyl acetate	111-15-9		50	10	
Ethylene glycol dimethyl ether	110-71-4		50	10	
2-methoxyethanol	109-86-4		50	10	
2-methoxypropanol	1589-47-5		50	10	
2-methoxyethoxyacetate	110-49-6		50	10	
2-methoxypropyl acetate	70657-70-4		50	10	
Triethylene glycol dimethyl ether	112-49-2		50	10	

Substances	CAS-Number	Notes	Limits for formulations / chemicals used in processes (mg/kg)	Limits for textiles (mg/kg)	Test Methods
Other requirements					
Formaldehyde	50-00-0	---	n.a.	75	ISO 14184-1
Glutaraldehyde	111-30-8	---	1000	1000	LC-MS/GC-MS
pH	--	---	n.a.	4-7,5	ISO 3071
abnormal odour	--	---	n.a.	none	GB 18401 - SNV 195 651
Biological active products	--	---	n.a.	not used	---
Other requirements					
2-(2-aminoethylamino)ethanol	111-41-1	AEEA	100	10	GC/MS
diazene-1,2-dicarbonamide	123-77-3	ADCA blowing agent in PVC	1000	100	LC/MS
Bisphenol A	80-05-7		100	1	GC/MS o LC/MS (ref. ASTM D7858, EN 71-9 e 11)
Other bisphenols Annex XV	various (see annex)	BPB, BPF, BPS, BPF, BPAF	1000	1000	GC/MS or LC/MS (ref. ASTM D7858, EN 9, EN 11)
Thiourea	62-56-6		1000	50	LC-MS/MS or UV
Perboric acid, sodium salt	various 11138-47-9 15120-21-5		1000	50	ICP/AAS
Titanium Dioxide	13463-67-7		1% (w/w) of particles have aerodynamic diameter ≤10 µm. (Liquid mixtures or emulsions or pastes are allowed for use)	----	ICP/AAS
UV Adsorbers Annex XIII	various (see Annex XIII)		1000	100	LC- MS/MS
Cyclic Siloxanes	various (see Annex XIV)	D4, D5, D6	1000	100	GC-MS

ANNEX I

Chlorinated benzenes and toluenes

<u>Name</u>	<u>CAS-N</u>	<u>Name</u>	<u>CAS-N</u>
Monochlorobenzene	108-90-7	<i>Monochlorotoluenes:</i>	
<i>Dichlorobenzenes:</i>		2-chlorotoluene	95-49-8
1,2-dichlorobenzene	95-50-1	3-chlorotoluene	108-41-8
1,3-dichlorobenzene	541-73-1	4-chlorotoluene	106-43-4
1,4-dichlorobenzene	106-46-7		
<i>Trichlorobenzenes:</i>		<i>Dichlorotoluenes:</i>	
1,2,3-trichlorobenzene	87-61-6	2,4-dichlorotoluene	95-73-8
1,2,4-trichlorobenzene	120-82-1	2,6-dichlorotoluene	118-69-4
1,3,5-trichlorobenzene	108-70-3	2,3-dichlorotoluene	32768-54-0
		2,5-dichlorotoluene	19398-61-9
<i>Tetrachlorobenzenes:</i>		3,4-dichlorotoluene	95-75-0
1,2,3,4-tetrachlorobenzene	634-66-2	3,5-dichlorotoluene	25186-47-4
1,2,3,5-tetrachlorobenzene	634-90-2		
1,2,4,5-tetrachlorobenzene	95-94-3;	<i>Trichlorotoluenes:</i>	
		2,3,6 trichlorotoluene	2077-46-5
Pentachlorobenzene	608-93-5	2,4,6 trichlorotoluene	23749-65-7
Esachlorobenzene	118-74-1	a,a,a-trichlorotoluene	98-07-7;
		2,4,5-trichlorotoluene	6639-30-1
		a,a,a-trichlorotoluene	98-07-7
		3,4,5-trichlorotoluene	21472-86-6
		a,2,4-trichlorotoluene	94-99-5
		a,2,6-trichlorotoluene	2014-83-7
		2,3,4-trichlorotoluene	7539-72-0
		a,3,4-trichlorotoluene	102-47-6
		<i>Tetrachlorotoluenes:</i>	
		a,a,a,2-tetrachlorotoluene	2136-89-2
		2,3,4,5-tetrachlorotoluene	1006-32-2
		a,a,a,4-tetrachlorotoluene	5216-25-1
		a,a,2,6-tetrachlorotoluene	81-19-6
		2,3,4,6-tetrachlorotoluene	875-40-1
		2,3,5,6-tetrachlorotoluene	29733-70-8
		Pentachlorotoluene	877-11-2

ANNEX II

Aromatic Amines

<u>Name</u>	<u>CAS-N</u>
1 4-aminobiphenyl	92-67-1
2 Benzidine	92-87-5
3 4-chloro-o-toluidine	95-69-2
4 2-naphthylamine	91-59-8
5 o-aminoazo-toluene	97-56-3
6 5-nitro o-toluidine; (2-amine-4-nitrotoluene)	99-55-8
7 4-chloroaniline	106-47-8
8 4-methoxy-m phenyldiamine	615-05-4
9 4,4'-methylenedianiline; (4,4'-diaminobiphenylmethane)	101-77-9
10 3,3'-dichlorobenzidine	91-94-1
11 3,3'-dimethoxybenzidine; (o-dianisidine)	119-90-4
12 3,3'-dimethylbenzidine; (o-toluidine)	119-93-7
13 4,4'-methylen di-o-toluidine; (3,3'-dimethyl-4,4'- diaminobiphenylmethane)	838-88-0
14 p-cresidine; (6-methoxy-m-toluidine)	120-71-8
15 4,4'-methylene-bis-(2 chloroaniline)	101-14-4
16 4,4'-oxydianiline	101-80-4
17 4,4'-thiodianiline	139-65-1
18 o-toluidine	95-53-4
19 4 methyl-m-phenyldiamine	95-80-7
20 2,4,5,-trimethylaniline	137-17-7
21 o-anisidine (2-methoxyaniline)	90-04-0
22 4-aminoazobenzene	60-09-3
23 2,4-Xylidine	95-68-1
24 2,6-Xylidine	87-62-7
25 4-chloro-o-toluidinium chloride	3165-93-3
26 2-naphthylamonium acetate	553-00-4
27 4-methoxy-m phenylenediamonium sulphate	39156-41-7
28 2,4,5-trimethylaniiline hydrochloride	21436-97-5

ANNEX III

Carcinogenic Dyestuffs

<u>C.I. Generic Name</u>	<u>C.I. Structure Number</u>	<u>CAS-N.</u>
C.I. Acid Red 26	C.I. 16 150	3761-53-3
C.I. Basic Red 9	C.I. 42 500	569-61-9
C.I. Basic Violet 14	C.I. 42 510	632-99-5
C.I. Direct Black 38	C.I. 30 235	1937-37-7
C.I. Direct Blue 6	C.I. 22 610	2602-46-2
C.I. Direct Red 28	C.I. 22 120	573-58-0
C.I. Disperse Blue 1	C.I. 64 500	2475-45-8
C.I. Disperse Blue 3	C.I. 61 505	2475-46-9
C.I. Basic Blue 26	C.I. 44045	2580-56-5
C.I. Basic Green 4 (malachite green)	varie	569-64-2 2437-29-8 18015-76-4 129-73-7 10309-95-2
C.I. Disperse Orange 11	C.I. 60 700	82-28-0
C.I. Disperse Yellow 23	C.I. 26 070	6250-23-3
C.I. Disperse Orange 149	=	85136-74-9
C.I. Disperse Yellow 3	C.I. 11 855	2832-40-8
C.I. Solvent Yellow 1	C.I. 11000	60-09-3
C.I. Solvent Yellow 3	C.I. 11160	97-56-3
C.I. Direct Brown 95	C.I. 30145	16071-86-6
C.I. Solvent Yellow 14	C.I. 12055	842-07-9
C.I. Acid Violet 49	C.I. 42640	1694-09-3
C.I. Solvent Yellow 2	C.I. 11020	60-11-7
C.I. Basic Violet 1	C.I. 42535	8004-87-3
Pigment Yellow 34	C. I. 77603	1344-37-2
Pigment Red 104	C. I. 77605	12656-85-8
Pigment Yellow 157	C. I. 77900	68610-24-2
Pigment Black 25	C.I. 77332	68186-89-0
Pigment Yellow 41		8012-00-8
Pigment Yellow 32		7789-06-2
Pigment Green 15		7758-97-6
Pigment Red 105 (Orange Lead)		1314-41-6
Pigment Yellow 157	C.I. 77900	68610-24-2
C.I. Basic Violet 3		548-62-9
C.I. Solvent Blue 4		6786-83-0
4,4'-bis (dimethylamino) -4-(methylamino) trityl alcohol		561-41-1



ANNEX IV

Allergenic Dyestuffs

<u>C.I. Name</u>	<u>C.I. Number</u>	<u>Structure CAS-N.</u>
Disperse Blue 1	C.I. 64 500	2475-45-8
Disperse Blue 3	C.I. 61 505	2475-46-9
Disperse Blue 7	C.I. 62 500	3179-90-6
Disperse Blue 26	C.I. 63 305	3860-63-7
Disperse Blue 35		56524-77-7
		56524-76-6
		12222-75-2
Disperse Blue 102		12222-97-8
Disperse Blue 106		12223-01-7
Disperse Blue 124		61951-51-7
Disperse Brown 1		23355-64-8
Disperse Orange 1	C.I. 11 080	2581-69-3
Disperse Orange 3	C.I. 11 005	730-40-5
Disperse Orange 37/76/59	C.I. 11132	12223-33-5
		13301-61-6
Disperse Red 1	C.I. 11 110	2872-52-8
Disperse Red 11	C.I. 62 015	2872-48-2
Disperse Red 17	C.I. 11 210	3179-89-3
Disperse Yellow 1	C.I. 10 345	119-15-3
Disperse Yellow 3	C.I. 11 855	2832-40-8
Disperse Yellow 9	C.I. 10 375	6373-73-5
Disperse Yellow 39		12236-29-2
Disperse Yellow 49		54824-37-2



ANNEX V

Chlorophenols

<u>Nome</u>	<u>CAS-N</u>
<i>Monochlorophenols</i>	25321-22-6
2-chlorophenol	95-57-8
3-chlorophenol	108-43-0
4-chlorophenol	106-48-9
<i>Dichlorophenols</i>	25167-81-1
2,3-dichlorophenol	576-24-9
2,4-dichlorophenol	120-83-2
2,5-dichlorophenol	583-78-8
2,6-dichlorophenol	87-65-0
3,4-dichlorophenol	95-77-2
3,5-dichlorophenol	591-35-5
<i>Trichlorofenols</i>	25167-82-2
2,3,5-Trichlorophenol	9333-78-8
2,3,4-Trichlorophenol	15950-66-0
2,3,6-Trichlorophenol	933-75-5
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
3,4,5-Trichlorophenol	609-19-8
<i>Tetrachlorophenols</i>	25167-83-3
2,3,4,6-Tetrachlorophenol	58-90-2
2,3,5,6-Tetrachlorophenol	935-95-5
2,3,4,5-Tetrachlorophenol	4901-51-3
Pentachlorophenol	87-86-5

ANNEX VI
Flame Retardants

<u>Name</u>	<u>CAS-N.</u>
PBB (polybrominated biphenyls)	various, 59536-65-1
Octabromobiphenyl (OctaBB)	various
Nonabromobiphenyl (NonaBB)	various
Decabromobiphenyl (DecaBB)	13654-09-6
Monobromobiphenyls (MonoBB)	various
Dibromobiphenyls	various
PBDE (polybrominated diphenyl ethers)	various
Monobromobiphenylethers (Mono BDE)	various
Tri BDE (tribromobiphenylethers)	various
Tetra BDE(tetrabromobiphenylethers)	40088-47-9 various
Penta BDE (pentabromodiphenylether)	32534-81-9
Hesa BDE (hesabromodiphenylether)	36483-60-0
Epta BDE (heptabromodiphenylether)	68928-80-3
Octa BDE (octabromodiphenylether)	32536-52-0
Nona BDE (nonabromodiphenylether)	63936-56-1; various
Deca BDE (decabromodiphenylether)	1163-19-5
Dibromopropylether	21850-44-2
HBCDD (hexabromocyclododecane and diastereoisomers)	25637-99-4, 3194-55-6, 134237-50-6, 134237-51-7, 134237-52-8
TRIS (tri-(2,3 dibromopropyl)-phosphate)	126-72-7
TEPA (tris-(aziridinyl)-phosphin -oxide)	545-55-1
Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)	13674-87-8
Tris(2-chloroethyl)phosphate (TCEP)	115-96-8
Bis (2,3-dibromopropyl)-phosphate	5412-25-9
Trimethylphosphate	512-56-1
2,2-bis[bromomethyl]propane-1,3-diol (BBMP)	3296-90-0
Tetrabromobisphenol A (TBBPA)	79-94-7
Tetraboron disodium heptaoxide	12267-73-1
Diboron trioxide	1303-86-2
Disodium tetraborate	1303-96-4 e 1303-43-4 e 12179-04-3 e 215-540-4
Boric Acid	10043-35-3 e 11113-50-1
Disodium octaborate	12008-41-2
Zinc borate	12767-90-7 1332-07-6
Antimony trioxide	1309-64-4
Tri-o- cresyl phosphate	78-30-8
Tris(2-Chloro-1-methylethyl) phosphate (TCPP)	13674-84-5
Trixylyl phosphate	25155-23-1
Chlorinated Paraffins - medium-chain C14-C17	85535-85-9
Chlorinated Paraffins - long-chain C18-C28	85535-86-0
2-Ethylhexyl-2,3,4,5- tetrabromobenzoate (TBB)	183658-27-7;
Bis(2-Ethylhexyl)-3,4,5,6- tetrabromophthalate (TBPH)	26040-51-7
Bis (2,3-dibromopropyl ether) tetrabromobisphenol A (TBBA)	21850-44-2

ANNEX VII

Halogenated Solvents

<u>Name</u>	<u>CAS-N.</u>
1,2-dichloroethane	107-06-2
1,1-dichloroethane	75-34-3
dichloromethane	75-09-2
trichloroethylene	79-01-6
pentachloroethane	76-01-7
1,1,1,2-tetrachloroethane	630-20-6
1,1,2,2-tetrachloroethane	79-34-5
1,1,2-trichloroethane	79-00-5
1,1,1-trichloroethane	71-55-6
1,1-dichloroethylene	75-35-4
1,2,3-trichloropropane	96-18-4
chloroform	67-66-3
carbon tetrachloride	56-23-5



ANNEX VIII

Organotin Compounds

<u>Name</u>	<u>CAS-N.</u>
Monobutyltin (MBT)	various
Tributyltin (TBT)	various
Tetrabutyltin (TeBT)	various
Monophenyltin (MPHT)	various
Diphenyltin (DPHT)	1011-95-6 and various
Triphenyltin (TPHT)	various
Monomethyltin(MMT)	various
Dimethyltin (DMT)	various
Trimethyltin (TMT)	various
Tetraethyltin (TeET)	597-64-8
Tricyclohexyltin (TCyHT)	various
Dipropyltin (DPT)	various
Tripropyltin (TPT)	various
Monooctyltin (MOT)	various
Diocetyl tin (DOT)	various
Triocetyl tin (TOT)	various
Tetraocetyl tin (TeOT)	various
particularly:	
Bis(tributyltin)oxide (TBTO)	56-35-9
Dichlorodibutyltin (DBTC)	683-18-1

ANNEX IX

Polycyclic Aromatic Hydrocarbons (PAH)

Name	CAS N.
Benzo[a]pyrene (BaP)	50-32-8
Benzo[e]pyrene (BeP)	192-97-2
Benzo[a]anthracene (BaA)	56-55-3
Chrysene (CHR)	218-01-9
Benzo[b]fluoranthene (BbFA)	205-99-2
Benzo[j]fluoranthene (BjFA)	205-82-3
Benzo[k]fluoranthene (BkFA)	207-08-9
Dibenzo[a,h]anthracene (DBAhA)	53-70-3
Acenaphthene	83-32-9
Acenaphthalene	208-96-8
Anthracene	120-12-7
Benzo[g,h,i]perylene	191-24-2
Naphthalene	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0
Fluoranthene	206-44-0
Fluorene	86-73-7
Indeno[1,2,3-cd]pyrene	193-39-5
Ciclopenta[c,d]pyrene	27208-37-3
Dibenzo[a,e]pyrene	192-65-4
Dibenzo[a,h]pyrene	189-64-0
Dibenzo[a,i]pyrene	189-55-9
Dibenzo[a,l]pyrene	191-30-0
1-methylpyrene	2381-21-7



ANNEX X

Phthalates

Name	CAS-N.
BBP(Butyl benzyl phthalate)	85-68-7
DBP (Dibutyl phthalate)	84-74-2
DEHP (di-(2-ethylhexyl)-phthalate)	117-81-7
DINP (di-iso-nonylphthalate)	28553-12-0 68515-48-0
DNOP (di-n-octylphthalate)	117-84-0
DIDP (di-isodecylphthalate)	26761-40-0 68515-49-1
DIBP (di-isobutylphthalate)	84-69-5
DMEP (di-(2-methoxyethyl) phthalate)	117-82-8
1,2-benzenedicarboxylic acid, di-C7-C11-branched and linear alkyl esters (DHNUP)	68515-42-4
1,2-benzenedicarboxylic acid, di-C6-C8-branched alkyl esters, C7-rich (DIHP)	71888-89-6
DnHP (di-n-hexylphthalate)	84-75-3
DPP (dipentylphthalate; n-, iso-; branched and linear)	131-18-0
Diisopentylphthalate (DIPP)	605-50-5
N-pentyl-isopentylphthalate (nPIPP)	776297-69-9
1,2-Benzenedicarboxylic acid dipentylester, branched and linear	84777-06-0
1,2-Benzenedicarboxylic acid, dihexyl ester branched and linear	68515-50-4
Diisohexyl phthalate	71850-09-4
Dinonyl phthalate (DNP)	84-76-4
Diethyl phthalate (DEP)	84-66-2
di-n-propyl phthalate (DPRP)	131-16-8
Dicyclohexyl phthalate (DCHP)	84-61-7
Diisooctyl phthalate (DIOP)	27554-26-3
Dimethyl phthalate (DMP)	131-11-3
1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate	68515-51-5 68648-93-1

ANNEX XI
Pesticides

Name	CAS N.
2,4,5-trichlorophenoxyacetic acid and Salts	93-76-5 e vari
2,4-D	94-75-7
Acetsmipirid	135410-20-7 160430-64-8
Azinophosmethyl	86-50-0
Azinophosethyl	2642-71-9
Aldrine	309-00-2
Bromophos-ethyl	4824-78-6
Captafol	2425-06-1
Carbaryl	63-25-2
Chlorobenzilate	510-15-6
Chlordane	57-74-9
Chlordimeform	6164-98-3
Chlorfenvinphos	470-90-6
Coumaphos	56-72-4
Cyfluthrin	68359-37-5
Cyhalothrin	91465-08-6
Cypermethrin	52315-07-8
DEF (tribufos)	78-48-8
Deltamethrin	52918-63-5
DDD	53-19-0 72-54-8
DDE	3424-82-6 72-55-9
DDT	50-29-3 789-02-6
Diazinon	333-41-5
Dichlorprop	120-36-5
Dicrotophos	141-66-2
Dieldrine	60-57-1
Dimethoate	60-51-5
Dinoseb (Salts and Acetates)	88-85-7 e altri
Endosulfan, α -	959-98-8
Endosulfan, β -	33213-65-9
Endosulfan	115-29-7
Endrine	72-20-8
Esfenvalerate	66230-04-4
Fenvalerate	51630-58-1
Heptachlor	76-44-8
Heptachloroepoxide	1024-57-3
Hexachlorobenzene	118-74-1
Hexachlorcyclohexane, α -	319-84-6
Hexachlorcyclohexane, β -	319-85-7
Hexachlorcyclohexane, δ -	319-86-8 608-73-1
Imidacloprid	105827-78-9 138261-41-3



Name	CAS N.
Isodrine	465-73-6
Kelevane	4234-79-1
Kepone (chlordecone)	143-50-0
Lindane	58-89-9
Malathion	121-75-5
MCPA	94-74-6
MCPB	94-81-5
Mecoprop	93-65-2
Metamidophos	10265-92-6
Methoxychlor	72-43-5
Mirex	2385-85-5
Monocrotophos	6923-22-4
Parathion (ethyl)	56-38-2
Parathion-methyl	298-00-0
Perthane	72-56-0
Phosdrin/Mevinphos	7786-34-7
Propethamphos	31218-83-4
Profenophos	41198-08-7
Quinalphos	13593-03-8
Strobane	8001-50-1
Telodrine	297-78-9
Toxaphene	8001-35-2
Trifluralin	1582-09-8
2-(2,4,5-Trichlorophenoxy)propionic acid and Salts	93-72-1 and various
Epoxy-heptachlorine	1024-57-3
Pentachlorobenzene	609-93-5
Tetraclorobenzene	95-93-4
Quintozene	8001-50-1
PCB	vari
PCT	vari
Timiperone (DTTB)	57648-21-2
Pentabromobenzene	608-93-5
Hexabromobiphenyl	36355-01-8
Glyphosate and salts	1071-83-6, 70901-12-1, various

ANNEX XIII
UV Adsorbers

<u>Name</u>	<u>CAS-N.</u>
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	36437-37-3
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7

ANNEX XIV
Cyclic siloxanes

<u>Name</u>	<u>CAS-N.</u>
Octamethylcyclotetrasiloxane (D4)	556-67-2
Decamethylcyclopentasiloxane (D5)	541-02-6
Dodecamethylcyclohexasiloxane (D6)	36437-37-3



ANNEX XV
Bisphenols

<u>Name</u>	<u>CAS-N.</u>
Bisphenol B	77-40-7
Bisphenol S	80-09-1
Bisphenol F	620-92-8
Bisphenol AF	1478-61-1