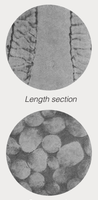
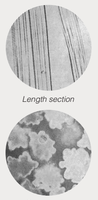
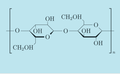
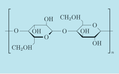
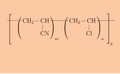
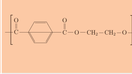
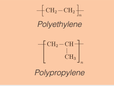
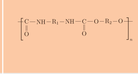
GINETEX FIBRE TABLE

	NATURAL FIBRE				REGENERATED FIBRE			SYNTHETIC FIBRE							
GENERIC NAME	**WOOL**	**SILK**	**COTTON**	**FLAX**	**VISCOSE**	**MODAL**	**ACETATE TRIACETATE**	**POLYAMIDE NYLON**	**ACRYLIC**	**MODACRYLIC**	**POLYESTER**	**CHLOROFIBRE**	**POLYETHYLENE POLYPROPYLENE**	**GLASS**	**ELASTANE**
Chemical composition	Natural protein	Natural protein	Natural cellulose	Natural cellulose	Regenerated cellulose	Regenerated cellulose with high tensile strength and high modulus of elasticity in wet condition	Acetylated cellulose Acetate 74 % - 92 % Triacetate > 92 %	Polyamide	Polyacrylonitrile	Polyvinyl chloride 15-50 % Acrylonitrile 50-85 %	Polyethylene glycol terephtalat	Polyvinyl Polyvinyl chloride	Aliphatic compounds	Glass	Compound of polyurethane (glycol and diisocyanate)
Microscopic views The microscopic views relate to a typical fibre, but with synthetic fibre the view can be very different, as a result of the manufacturing process.	 *Length section* *Cross section*				 *Length section* *Cross section*			 *Length section* *Cross section*							
Chemical formula													 *Polyethylene* *Polypropylene*		
Identification (pure fibre) Caution mix fibre content	Microscopic view. Scales. Flammable, but extinguishing. Smell of burned hair. Black ash. Dissolves in boiling NaOH (5 %). Does not dissolve in cold HCl (35 %), H2SO4 (75 %) and HNO (60 %). Dissolves in hypochlorite (37 %).	Microscopic view. Flammable, but extinguishing. Smell of burned hair. White ash. Dissolves in boiling NaOH (5 %). Dissolves in cold HCl (35 %). Dissolves in cold H2SO4 (75 %) and HNO3 (60 %). Dissolves in hypochlorite (37 %).	Microscopic view. Burns easily. Smell of burned paper. Little ashes. Does not dissolve in boiling NaOH (5 %). Dissolves in cold H2SO4 (75%). Mercerized cotton : recognizable on shine.	Microscopic view. Fire test as cotton. Does not dissolve in boiling NaOH (5 %). Dissolves in cold H2SO4 (75 %). Also identifiable with long fibre (5-10 cm).	Microscopic view. Burns easily. Smell and ashes as cotton. Does not dissolve in boiling NaOH (5 %). Dissolves in cold H2SO4 (75 %). Also recognizable on shine (except when shine is treated). Less strong in wet condition.	The same as viscose, but different microscopic views and greater resistance in wet condition.	Microscopic view. Burns easily, under partially melt. Vinegar odor. Dissolves in acetone and in cold H2SO4 (75 %). Does not dissolve in boiling NaOH (5 %). Also recognizable on shine (except when shine is treated). Triacetate damages in acetone and dissolves in methylene chloride.	Burns slowly under melting and sizzles. Melted drops fall from the burning fibres. Smell of celery. Does not dissolve in acetone. Dissolves in cold phenol (90 %) H2SO4 (75 %), HCL (20 %) and in formic acid. Also recognizable to the strength of the fibre.	Microscopic view. Burns easily and melt. Does not dissolve in acetone, phenol and HCl (20 %) in the cold. Dissolves in dimethylformamide.	Microscopic view. Very difficult to burn and melt. Smell of solder. Dissolves in acetone and phenol (90 %). Does not dissolve in H2SO4 (75 %) and in HCL (20 %). Dissolves in dimethylformamide.	Burns difficult and irregular, melt. Does not dissolve in acetone, phenol (90 %) H2SO4 (75 %) and HCL (20 %) in the cold. Dissolves in phenol (90 %) in warmth.	Microscopic view. Melt and chars but doesn't burn. Does not dissolve in acetone, phenol H2SO4 (75 %) and HCl (20 %) in the cold. Dissolves in phenol (90 %) in the warmth. Dissolves in cyclohexanone.	Melt and burns easily. Greasy feel. Melting point polyethylene : 130 °C. Melting point polypropylene : 170 °C.	Melt. Incombustible.	Microscopic view. Burning and melting under formation of drops, disseminates a smell of bitter almonds, occurs in the form of elastic, rubbery thread. Dissolves in H2SO4 (75 %) in boiling dimethylformamide. Does not dissolve in acetone, benzine, HCL (35 %) and ice acetic acid.
Normal moisture content (relative humidity 65 %)	17 %	11 %	Cotton : 8,5 % Mercerized cotton : 10,5 %	12 %	13 %	13 %	Acetate : 9 % Triacetate : 7 %	6,25 %	2 %	2 %	1,5 %	2 %	Polyethylene : 1,5 % Polypropylene : 2 %	2 % - 3 %	1,5 %
Washing *(see also remark 1)*	40 or	40 or	95	95	60	60	40	60	40	40	60	40	40		60
Bleaching *(see also remark 1)*															
Drying *(see also remark 1)*															
Ironing *(see also remark 1)*															
Professionnal cleaning *(see also remark 3)*	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W	P W
Alkaline action *(see also remark 1)*	Felting and resolving. Avoid.	Resolving. Avoid.	No degradation.	No degradation.	Degradation by concentreted solutions of caustic alkalis.	No degradation.	Degradation. Avoid.	No degradation.	Light degradation.	No degradation.	Light degradation in warm conditions.	No degradation.	No degradation.	Degradation. Avoid.	No degradation in normal conditions.
Colorants commonly used	Acid, direct, metal complex, reactive and pigment colours.	Acid, direct, metal complex, reactive and pigment colours.	Direct, sulphur, vat dyes, indigosol, phtalocyanine, reactive, pigment colours and naphthols.	Direct, sulphur, vat dyes, indigosol, phtalocyanine, reactive and pigment colours.	Direct, sulphur, vat dyes, indigosol, phtalocyanine, reactive, pigment colours and naphthols.	Direct, sulphur, vat dyes, indigosol, phtalocyanine, reactive, pigment colours and naphthols.	Dispersion and pigment colours.	Dispersion, acid, metal complex, and pigment colours.	Cationic, dispersion and pigment colours.	Dispersion and pigment colours.	Dispersion and pigment colours.	Polyvinyl chloride : dispersion and pigment dyes Polyvinylidene chloride : pigment dyed en masse.	Pigment dyed en masse.	Pigment dyes.	Acid, direct, metal complex, cationic, indigosol, reactive, vat dyes, and pigment dyes.

Remarks

These remarks are general. Care conditions can be more restrictive according to textile articles and their use.

The specified symbols are those of the maximal tolerable treatment for the fibre concerned.

1) These remarks concern only the fibre. Restrictions may be imposed by the colour fastness of certain articles, by the finishing, and other factors.

2) Abbreviation are given for information only, and should not be mentionned on a textile label.

3) If the textile article can be domestic machine washed, a professionnal wet cleaning process Ⓦ can be performed.

Washing *(Remark 3)*	95 70 60 60 50 50 40 40 40 30 30 30	The numbers in the wash tub specify the maximum temperature in °C which must not be exceeded. A hand symbol in the tub means that only a mild wash treatment by hand is possible.			
Bleaching	Any bleaching agents allowed.	Only oxygen/non-chlorine bleach allowed.		Do not bleach/no bleach.	
Tumble drying	Tumble drying possible. Normal temperature 80 °C.	Tumble drying possible. Lower temperature 60 °C.		Do not tumble dry.	
Natural drying process	Drying on line. / Drip drying on line.	Dry flat. / Drip flat drying.	Drying on line in the shade. / Drip drying on line in the shade.	Dry flat in the shade. / Drip flat drying in the shade.	
Ironing	Iron at a maximum sole-plate temperature of 200 °C.	Iron at a maximum sole-plate temperature of 150 °C.	Iron at a maximum sole-plate temperature of 110 °C. Without steam.	Do not iron. Steaming and steam treatments may cause irreversible damage.	
Professionnal textile care	Professional dry cleaning in tetrachloroethene and all solvents listed for the symbol Ⓟ.	Professional dry cleaning in tetrachloroethene and all solvents listed for the symbol Ⓟ. Mild process.	Professional dry cleaning in hydrocarbons (distillation temperature between 150 °C and 210 °C). Normal process.	Professional dry cleaning in hydrocarbons (distillation temperature between 150 °C and 210 °C). Mild process.	
Do not dry clean	Professional wet cleaning. Normal process.	Professional wet cleaning. Mild process.	Professional wet cleaning. Gentle process.	Do not wet clean.	

Nr	Fibre name*	Abbreviation *(Remark 2)*	Nr	Fibre name	Abbreviation *(Remark 2)*	Nr	Fibre name	Abbreviation *(Remark 2)*	Nr	Fibre name	Abbreviation *(Remark 2)*	Nr	Fibre name	Abbreviation *(Remark 2)*
1	Wool	WO (wv)	3	Hair	HA	13	Broom	GI	26	Acrylic	PAN	39	Polyurethane	–
2	Alpaca	WP	3	Hair (cow)	HR	14	Ramie	RA	27	Chlorofibre	CLF	40	Vinylal	PVAL
2	Llama	WL	3	Hair (goat)	HZ	15	Sisal	SI	28	Fluorofibre	PTFE	41	Trivinyl	(TV)
2	Camel	WK	3	Hair (horse)	HS	16	Sunn	SN	29	Modacrylic	MAC	42	Elastodiene	ED
2	Cashmere	WS	4	Silk	SE	17	Henequen	HE	30	Polyamide or nylon	PA	43	Elastane	EL (EA/ELAS)
2	Mohair	WM	5	Cotton	CO	18	Maguey	MG	31	Aramid	AR	44	Glass fiber	GF (VE)
2	Angora	WA	6	Kapok	KP	19	Acetate	CA (AC)	32	Polyimide	PI	45	Elastomultiester	EME
2	Vicuna	WG	7	Flax or linen	LI	20	Alginate	ALG (AG)	33	Lyocell	CLY	46	Elastolefin	EOL
2	Yak	WY	8	True hemp	(CA)	21	Cupro	CUP	34	Polylactide	PLA	47	Melamine	MEL
2	Guanaco	WU	9	Jute	JU	22	Modal	CMD	35	Polyester	PES	48	Metal	MTF (ME/MET)
2	Cashgora	–	10	Abaca (manila hemp)	AB	23	Protein	(PR)	36	Polyethylene	PE	48	Paper	–
2	Beaver	WB	11	Alfa	AL	24	Triacetate	CTA	37	Polypropylene	PP	48	Asbestos	(AS)
2	Otter	WT	12	Coir (coconut)	CC	25	Viscose	CV	38	Polycarbamide	–	49	Polypropylene/ polyamide bicomponent	–

** In Annex 1 of EU Regulation No.1007/2011*

Product type	Composition	Textile	Temperature	Efficiency	Fibre diameter
Powder (Classic and compact).	Contains : oxygen bleach and optical whitener.	Large washes, white textiles. Special for cotton.	From 40 °C to 95 °C. Particularly suitable for > 60 °C. Machine wash.	All stains and specially colored stains (wine, tea, fruit, coffee...).	Micro fibre 6 µm / Silk 12 µm / Cotton 13 µm / Cashmere 16 µm
All over washproducts	Contains : optical whitener but no oxygen bleach.	White and colorfast textile. Used for mix textiles (cotton and synthetic materials).	From 30 °C to 60 °C. Machine and handwash.	Specially for grease stains (sauce, make-up). Less efficient on colored stains.	
Colour products : powder and liquids.	No oxygen bleach nor optical whitener.	Colorfast textile. Used for mix textiles (cotton and synthetic materials).	From 30 °C to 60 °C. Machine wash.	Common stains and grease stains. Less efficient on colored stains.	Virgin wool 17 µm / Polyester 18 µm / Coarse Wool 22 µm
Delicate textiles : powder and liquids.	No oxygen bleach nor optical whitener. Contains ingredients for color protection.	Fragile fibre (wool, silk) and sensitive colours.	From 30 °C to 60 °C. Machine and handwash.	Common stains.	
Hand wash.	No oxygen bleach nor optical whitener.	Fragile fibre (wool, silk) and sensitive colours.	Handwash only.	Common stains. Textiles not very polluted..	

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