APPENDIX I. Durability requirements for leather, textile fabric and coated fabric materials

Requirements for good physical quality upholstery materials in furniture are defined in Tables 2, 3 and 4 below.

Table 2. Physical requirements of leather materials in furniture upholstery (taken from Tables 1 and 2 in EN 13336)

Fundamental characteristics	Test method		Recommended values		
			Nubuck, Suede and Aniline*	**Semi-aniline***	**Coated, pigmented and other***
pH and ΔpH	EN ISO 4045		≥ 3.5 (if the pH is ≤4.0, ΔpH shall be ≤ 0.7		
Tear load, average value	EN ISO 3377-1		> 20 N		
Colour fastness to to-and-fro rubbing	EN ISO 11640. Total mass of finger 1000g. Perspiration alkaline solution as defined in EN ISO 11641.	Aspects to be evaluated	Change of leather colour and felt staining	Change of leather colour and felt staining No destruction of finish	
		using dry felt	50 cycles, ≥ 3 grey scale	500 cycles, ≥ 4 grey scale	
		using wet felt	20 cycles, ≥ 3 grey scale	80 cycles, ≥ 3/4 grey scale	250 cycles, ≥ 3/4 grey scale
		using felt wetted with artifical persperation	20 cycles, ≥ 3 grey scale	50 cycles, ≥ 3/4 grey scale	80 cycles, ≥ 3/4 grey scale
Colour fastness to artificial light	EN ISO 105-B02 (method 3)		≥ 3 blue scale	≥ 4 blue scale	≥ 5 blue scale
Dry finish adhesion	EN ISO 11644		--	≥ 2N / 10mm	
Dry flex resistance	EN ISO 5402-1		For aniline leather with non-pigmented finish only, 20 000 cycles (no finish damage cracks)	50 000 cycles (no finish damage cracks)	50 000 cycles (no finish damage cracks)
Colour fastness to water spotting	EN ISO 15700		≥ 3 grey scale (no permanent swelling)		
Cold crack resistance of finish	EN ISO 17233		--	-15°C (no finish crack)	
Fire resistance	EN 1021 or relevant national standards		Pass		

*Definitions of these leather types are according to EN 15987

Table 3. Physical requirements for textile fabric covering materials in furniture upholstery.

Test factor	Method	Removable and washable coverings	Non-removable and washable coverings
Dimensional changes during washing and drying	Domestic washing: ISO 6330 + EN ISO 5077 (three washes at temperatures as indicated in the product with tumble drying after each washing cycle) Commercial washing: ISO 15797 + EN ISO 5077 (at minimum of 75 °C)	+/- 3.0% for woven fabrics +/- 6.0% for non-woven fabrics	N/A
Colour fastness to washing	Domestic washing: ISO 105-C06 Commercial washing: ISO 15797 + ISO 105-C06 (at minimum of 75 °C)	≥ level 3-4 for colour change ≥ level 3-4 for staining	N/A
Colour fastness to wet rubbing*	ISO 105 X12	≥ level 2-3	≥ level 2-3
Colour fastness to dry rubbing*	ISO 105 X12	≥ level 4	≥ level 4
Colour fastness to light	ISO 105 B02	≥ level 5**	≥ level 5**
Fabric resistance to pilling	Knitted and non-woven products: ISO 12945-1 Woven fabrics: ISO 12945-2	ISO 12945-1 result >3 ISO 12945-2 result >3	ISO 12945-1 result >3 ISO 12945-2 result >3

* does not apply to white products or products that are neither dyed nor printed

** A level of 4 is nevertheless allowed when furniture covering fabrics are both light coloured (standard depth ≤ 1/12) and made of more than 20 % wool or other keratin fibres, or more than 20 % linen or other bast fibres.

† For further guidance about performance classes and limits, procurers are referred to EN 14465.

Table 4. Physical requirements for coated fabric covering materials in furniture upholstery.

Property	Method	Requirement
Tensile strength	ISO 1421	CH ≥ 35daN and TR ≥ 20daN
Tear resistance of plastic film and sheeting by the trouser tear method	ISO 13937/2	CH ≥ 2,5daN and TR ≥2daN
Colour fastness to artificial weathering – Xenon arc fading lamp test	EN ISO 105-B02	Indoor use ≥ 6; Outdoor use ≥ 7
Textiles – abrasion resistance by the Martindale method	ISO 5470/2	≥ 75,000
Determination of coating adhesion	EN 2411	CH ≥ 1,5daN and TR ≥ 1,5daN

Where: daN = deca Newtons, CH = Warp and TR = Weft