

## **2.6 Physical test parameters for accessories (for zippers, buttons and other fasteners)**

				Performance values - all zippers								Children's articles (additional)	
Code	Category		Chain width	Strength of puller attachment	Strength of closed end zipper	Strength of top stops	Strength of open end fastener box	Resistance to reciprocation: minimum cycles without failure	Lateral strength of zipper	Lateral strength of open-end attachment	Strength of slider locking device	Strength of slider on half chain of open-end zipper	Torsional resistance (strength of zipper puller against rotation)
			Units	N	N	N	N	cycles	N	N	N	N	Nm
			Annex	B	C	D	E	F	G	H	I	J	K
Zipper type				EN 16732									
1.	UL	Ultra light	2,5-3,9 mm	70	35	50	40	500	150	40	10	70	0,34
2.	L	Light	4,0-5,4 mm	80	60	70	70	500	200	70	15		
3.	M	Medium	5,5-6,9 mm	200	80	90	90	500	250	90	25		
4.	MH	Medium-heavy	7,0-8,4 mm	250	100	110	120	500	370	120	40		
5.	H	Heavy	8,5-11,9 mm	300	140	130	150	500	470	160	60		
6.	UH	Ultra-heavy	12 mm	300	140	130	150	500	470	160	60		
Buttons and other fasteners pull test (plastic and metal)				EN 71*									
1.	press buttons			$\varnothing > 6\text{mm} \rightarrow 90\text{ N}$ $\varnothing < 6\text{mm} \rightarrow 50\text{ N}$									
2.	punch buttons												
3.	sew-on buttons												
4.	rivets												
5.	eyelets / clamps												
6.	buckles												

All requirements are necessary according to the particular usage.

\* The "buttons and other fastener pull test" is just obligatory for baby and children's wear (size 50 - 176)

**In case of queries the test results of a test institute named by the s.Oliver Group are decisive. Results of other institutes will not be accepted.**

**In general****Finishing / Optic**

Accessories must be checked out on defensibility. Prior to operating crease resistant finishing, colour dyeing procedures or the use of bleaching agents the accessories must be adjusted with the manufacturer (to the procedure). Accessories optic should not be negative affected by textile care and surfaces drawing in relation to colouring modification, such as industrial washing or garment dyed products. The functionality of accessories must remain after washing and / or dry-cleaning. It must be secured that metal particles don't oxidize or rust during washing and or dry clean. ISO 9227.

**Small parts**

All small parts (pearls, sequins, etc.) must withstand at least five washing processes without damage, the assessment have to be done after the five washings. It concerns baby and children's wear (size 50 - 176) the assessment have to be done after the first and after the fifth washing process.

**Mechanical Test**

The opening force should be adjusted to the product. Across pull must refer to clamps and eyelets of the used product group. After attaching the accessories should not show rough edges and laces. They should be securely attached and must not come off. Accessories have to be treated with the correct instruments. Paint must not come off.

**In general**

All mentioned tests are to be executed on the finished garment or equivalent production accessory. All accessories must meet the 2 years guarantee regarding all mentioned requirements. All Accessories made or mixed with textile materials, woven accessories ( such as zipper tapes etc ) or leather must meet the requirements of the latest version of the s.Oliver group :

- Physical Test Parameters for textiles and leather
- Test parameters for harmful substances in textiles and leather in the respective parts.