

**DORMA-Glas GmbH**  
**Max-Planck-Str. 33-45**  
**D-32107 Bad Salzuflen**

Bad Salzuflen 05.01.2017

herewith certifies that the product

## MUTO Comfort XL Self-Closing 120

Building hardware for manually operated sliding doors with end damping and soft closing

fulfils the following requirements:

### Classification DIN EN 1527:2013

1	2	3	4	5	6	7	8	9
-	6*	3	-	1	4**/2	-	1	2

\* excluding the DORMOTION soft closing (wear part)

\*\* refers only to the system without DORMOTION soft closing

DIN EN 1527:2013	
1. Category of use:	No grade identified for these products
2. Durability:	Grade 6 = 100.000 test cycles* 200.000 test cycles according dormakaba Standard*
3. Max door leaf mass:	Grade 3 = 120kg
4. Fire resistance:	No grade identified for these products
5. Safety:	Grade 1
6. Corrosion resistance:	Grade 4 = very high corrosion resistance** Grade 2 = moderate corrosion resistance
7. Security:	No grade identified for these products
8. Category of door:	Grade 1 = Sliding door
9. Initial friction maximum permitted value:	Grade 2 = 60N NOTE: For products with a door mass from 101 kg to 330 kg
Environmental conditions and requirements regarding installation and operation	
Operable temperature range LSG:	max. 40°C (</= 3h impact time)
Operable temperature range TSG:	max. 70°C
Glass type:	TSG and LSG made of TSG (>/=0.76mm PVB foil, >/=5mm thickness)
Glass thickness:	8 - 13,5mm
Glass surface:	transparent, satin-finished, no self-cleaning surfaces in the area of the carriage (Lotus, Clearshield etc.)
Usage in moist rooms without appreciable pollution through chloride- and/or sulphur dioxide:	Suitable
Usage in pool areas etc. with pollution through chloride- and/or sulphur dioxide:	Not suitable

Effectiveness of damping and soft closing:

Door speed [m/s]		Residual move in [mm]	Comment
from	to		
0	0.2	110 to 70	Standard range
0.2	0.3	70 to 30	Limit range
0.3	0.4	30 to 0	Overload range

With a door speed of more than 0.4m/s the damping unit is not able to convert the energy completely (snap-through). This can reduce the durability of the damping unit.