

**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 DORMOTION 80/150

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
<b>Typ XL 80</b>	-	<b>6*</b>	<b>2</b>	-	<b>1</b>	<b>4**/2</b>	-	<b>1</b>	<b>2</b>
<b>Typ XL 150</b>	-	<b>6*</b>	<b>3</b>	-	<b>1</b>	<b>4**/2</b>	-	<b>1</b>	<b>1</b>

\* excluding the DORMOTION soft closing (wear part)

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

<b>DIN EN 1527:2013</b>	
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 XL80: Max door leaf mass XL150:	Grade 2 = 80kg Grade 3 = 150kg
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 XL80: Initial friction maximum permitted value XL150:	Grade 2 = 60N Grade 1 = 100N NOTE: For products with a door mass from 101 kg to 330 kg
<b>Environmental conditions and requirements regarding installation and operation</b>	
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:

<b>Door speed [m/s]</b>		<b>Residual move in [mm]</b>	<b>Comment</b>
<b>from</b>	<b>to</b>		
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.