

## Declaration of manufacturer Mechanical gears

Series	419F5	
Test Lab / Client	Gerhard Geiger GmbH & Co. KG, Schleifmühle 6,	
	74321 Bietigheim-Bissingen, Germany	
Standard	DIN EN 14203 (D) July 2004, Blinds and shutters – Capability for use of	
gears with crank handle – Requirements and test method		

Test data

Familiy of products	Rolling shutters (EN 13659)		
Gear type	Worm gear	Reduction ratio i	6:1
Torque M <sub>S</sub> [Nm]	8	Efficiency $\eta$ (M <sub>s</sub> )	0,43

## Technical data / Test results: forced operation test

Forced operation test carried out					
Test effort P <sub>F</sub> [N] 60 (10,80 Nm) (Working radius 0,18 m)					
Cycles	50	Passed	YES		

Number of achieved cycles | 10.000 (endurance class 3)

This gear series is in conformity with the requirements of the directive DIN EN 14203 dated July 2004

## Divergence from the norm:

Due to the strong thermal load at the test rig, the outflow of tiny amounts of lubricants is unavoidable.

Hun lived Deupl

Bietigheim-Bissingen, 08.05.2013

Hans-Michael Dangel (General Management)