

WALTHER FLENDER TIMING BELT PULLEYS-SURFACE TREATMENTS

Metallic coating

		Layer thicknesses in µm	Tolerances in µm	Only for pitches ≤5mm! Outer diameter- correction in mm	Material timing belt pulley	Characteritics
1.	Galvanizing	bis 80	± 10	depending on specification	St	 Increases corrosion protection and chemical resistance Takes place in heated acidic electrolytes Good corrosion protection only with absolutely dense coatings min. 25 μm thick on iron Good hardening layer
2.	Nickel plating	20 - 25	± 3	DA - 0,04	St/AL	
3.	Chromating				St/AL	 Increase in corrosion protection with simultaneous improvement in appearance Post-treatment of a zinc coating by dipping in solutions of sodium chromate and sulfuric acid 1 ÷ 7 μm, e.g. only when exposed to salt water
3.1	Decorative	1-2		no correction		
3.2	Hard chrome plating	bis 100	± 5	depending on specification		

Non-metallic coating

		Layer thicknesses in µm	Tolerances in µm	Only for pitches ≤5mm! Outer diameter- correction in mm	Material timing belt pulley	Advantages
1.	Burnishing	1-2		no correction	St	Medium corrosion resistance and improvement of optics Immersion of iron in heated caustic soda, alkali or sulfate solutions, followed by repeated rubbing with oil or wax
2.	Anodizing	10 - 25	±5	no correction	AL	Increase of corrosion resistance Creation of an oxide layer by electrical oxidation on Al, Mg, Zn Colored coatings are possible
2.1	Decorative	1-2				
3.	Phosphating	5 - 15	±3	DA - 0,02	St/AL	Medium corrosion resistance and Improvement of optics Production of phosphate coatings by dipping in phosphate acid soluti- ons of heavy and alkali metals. Low corrosion resistance
4.	Hard coating / hard anodizing	< 40 >40	±5 ±10	DA - 0,04	AL	Increase in the surface hardness of the gearing and corrosion resistance
4.1	PTFE sealing	ca. 3				Improvement of the sliding properties Post-sealing of the hard-coated surface

Note: Holes/threads may need to be covered before coating.

All data, calculations and other information are based on our current knowledge and have been compiled with great care. The available data are non-binding and serve informational purposes only. Further information can be found at www.walther-flender.de