PrimePart® ST PEBA 2301

Thermoplastic Polyamide Elastomer

EOS GmbH

Message:

PrimePart® ST (PEBA 2301) is a natural coloured powder of a polyether block amide, which is developed and optimised for the application in a Laser Sinter system.

Laser-sintered parts made from PrimePart® ST (PEBA 2301) possess excellent material properties:

High elasticity and strength

good chemical resistance

excellent long-term stability

high selectivity and detail resolution

various finishing possibilities (e.g vibratory grinding, flame treatment, tub colouring, bond-ing, flocking)

Typical applications of the material are fully functional, flexible plastic parts of highest quality. Due to the excellent mechanical properties the material is often used as a production material for long term use. The rubber-like fatigue behaviour qualifies Prime Part® ST (PEBA 2301) as excellent prototyping and series material.

General Information					
Features	Fatigue Resistant				
	Good Chemical Resistance				
	Good Flexibility				
	Good Stability				
	Good Strength				
	Good Surface Finish				
	High Elasticity				
	High Heat Resistance				
	Soft				
Uses	Engineering Parts				
	Prototyping				
	Rubber Replacement				
Appearance	Natural Color				
	White				
Forms	Powder				
Processing Method	3D Printing, Laser Sintering/Melting				
Physical	Nominal Value	Unit	Test Method		
Density	0.950	g/cm³	Internal Method		
Hardness	Nominal Value	Unit	Test Method		
Shore Hardness (Shore D, 15 sec)	35		ISO 868		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus					
1	75.0	MPa	ISO 527-2		

2	80.0	MPa	ISO 527-2
Tensile Stress			
3	7.00	MPa	ISO 527-2
4	8.00	MPa	ISO 527-2
Tensile Strain			
Break ⁵	200	%	ISO 527-2
Break ⁶	70	%	ISO 527-2
Thermal	Nominal Value	Unit	Test Method
Melting Temperature ⁷	150	°C	ISO 11357
Melting Temperature ⁷ NOTE	150	°C	ISO 11357
	X Direction	°C	ISO 11357
NOTE		°C	ISO 11357
NOTE 1.	X Direction	°C	ISO 11357
NOTE 1. 2.	X Direction Z Direction	°C	ISO 11357
NOTE 1. 2. 3.	X Direction Z Direction Z Direction	°C	ISO 11357
NOTE 1. 2. 3. 4.	X Direction Z Direction Z Direction Y Direction	°C	ISO 11357

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