POLYMER SOLUTIONS

PA 2200 CarbonReduced Balance

Material Data Sheet

PA 2200 CARBONREDUCED BALANCE

Product Description

PA 2200 CarbonReduced, based on polyamide 12, offers a wide range of applications thanks to its very balanced property profile and is the most proven material on the market.

PA 2200 CarbonReduced is an EOS Responsible Product. It combines a heavily reduced CO_2e footprint with the well-known technical properties of PA 2200.

The advantage of the process parameter Balance, at 120µm layer thickness, lies in its ability to balance different factors at the same time, e.g., production costs, mechanical properties, surface quality and accuracy. Therefore it is suitable for parts with varying geometries, dimensions and requirements.

MAIN CHARACTERISTICS

- 100% proven quality and 45% less CO_2e
- Balanced property profile
- Multipurpose material

TYPICAL APPLICATIONS

- Production equipment like grippers, jigs and fixtures
- Surgery cutting guides and bone models for the medical industry
- Eyewear in the consumer goods industry
- Spare parts like brackets or covers, e.g., in the automotive industry
- Functional parts for prototyping that include hinges or threads

MECHANICAL PROPERTIES	DRY / CONDITIONED	UNIT	TEST STANDARD
Tensile Modulus			ISO 527-1/-2
X Orientation	1650 / -	MPa	
Y Orientation	1650 / -	MPa	
Z Orientation	1650 / -	MPa	
Tensile Strength			ISO 527-1/-2
X Orientation	48 / -	MPa	
Y Orientation	48 / -	MPa	
Z Orientation	42 / -	MPa	
Nominal Strain at Break			ISO 527-1/-2
X Orientation	18 / -	%	
Y Orientation	18 / -	%	
Z Orientation	4 / -	%	
Flexural Modulus			ISO 178
X Orientation	1500 / -	MPa	
Charpy Impact Strength (+23°C)			ISO 179/1eU
X Orientation	53 / -	kJ/m²	
Charpy Notched Impact Strength (+23°C)			ISO 179/1eA
X Orientation	4.8 / -	kJ/m²	
Izod Notched Impact Strength (+23°C)			ISO 180/1A
X Orientation	4.4 / -	kJ/m²	
Shore D Hardness			ISO 7619-1
X Orientation	75 / -	-	

THERMAL PROPERTIES	DRY / CONDITIONED	UNIT	TEST STANDARD
Melting Temperature	176	°C	ISO 11357-1/-3
Temperature of Deflection under Load 1.80 MPa			ISO 75-1/-2
X Orientation	64	°C	
Z Orientation	57	°C	
Temperature of Deflection under Load 0.45 MPa			ISO 75-1/-2
X Orientation	157	°C	
Z Orientation	145	°C	
Vicat Softening Temperature			ISO 306/B50
X Orientation	176	°C	
Burning Behavior, 0.50 mm nom. Thickness	HB	class	UL 94
Thickness Tested	0.5	mm	
Burning Behavior, 1.60 mm nom. Thickness	HB	class	UL 94
Thickness Tested	1.6	mm	
Burning Behavior, 3.2 mm nom. Thickness	HB	class	UL 94
Thickness Tested	3.2	mm	

ELECTRICAL PROPERTIES	DRY / CONDITIONED	UNIT	TEST STANDARD
Comparative Tracking Index CTI			IEC 60112
X Orientation	≥600 / -		
Y Orientation	≥600 / -		
Z Orientation	≥600 / -		

OTHER PROPERTIES	VALUE	UNIT	TEST STANDARD
Density	0.93	g/cm³	EOS Method
Powder Color	white	-	-
Components Color	white	-	-

HEADQUARTERS

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