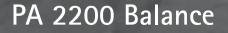


POLYMER SOLUTIONS



Material Data Sheet

PA 2200 BALANCE

## **Product Description**

PA 2200, 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 is also available as the EOS Responsible Product PA 2200 CarbonReduced. 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

- ightarrow Balanced property profile
- ightarrow Multipurpose material

## **TYPICAL APPLICATIONS**

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

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

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

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

OTHER PROPERTIES	VALUE	UNIT	TEST STANDARD
Density	0.93	g/cm <sup>3</sup>	EOS Method
Powder Color	white	-	-
Components Color	white	-	-

## HEADQUARTERS

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Status as of 12.05.2024. Subject to technical modifications. EOS is certified according to ISO 9001.

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