

DESCRIPTION Staramide ACF3 is a 15 % Carbon Fiber Reinforced Polyamide 66 injection Molding Resin

PROPERTY (1)	UNIT	STANDARD	TYPICAL VALUE (1) Dry As Moulded
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PHYSICAL

Density	g/cm ³	ISO 1183	1.19
Mold Shrinkage on Tensile Bar, flow	%	E2P Method	0.1 - 0.2
Water Absorption, (23°C/sat)	%	ISO 62	5.5

MECHANICAL

Flexural Modulus, 2 mm/min	MPa	ISO 178	10000
Flexural Stress, break, 2 mm/min	MPa	ISO 178	230
Hardness, Rockwell L		ISO 2039-2	105
Tensile Modulus, 1 mm/min	MPa	ISO 527	13000
Tensile Strain, break, 5 mm/min	%	ISO 527	2
Tensile Stress, break, 5 mm/min	MPa	ISO 527	170

IMPACT

Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	kJ/m ²	ISO 179/1eU	45
Izod Impact, notched 80*10*4 +23°C	kJ/m ²	ISO 180/1A	5
Izod Impact, notched 80*10*4 -20°C	kJ/m ²	ISO 180/1A	4
Izod Impact, notched 80*10*4 -40°C	kJ/m ²	ISO 180/1A	3

THERMAL

CTE, 23°C to 60°C, flow	1/°C	ISO 11359-2	2.00E-05
CTE, 23°C to 60°C, xflow	1/°C	ISO 11359-2	1.10E-04
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	°C	ISO 75/Ae	250

Source RJF, last update 01-07-2010

(1) Typical values for natural color unless specified otherwise. Do not constitute a specification. Significant variations are possible for colors

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STARAMIDE

ACF3



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PROPERTY (1)	UNIT	STANDARD	TYPICAL VALUE (1) Dry As Moulded
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THERMAL

HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	°C	ISO 75/Be	252
Vicat Softening Temp, Rate B/120	°C	ISO 306	255

FLAME CHARACTERISTICS

Oxygen Index (LOI)	%	ISO 4589	28
UL E2P measurement, 94HB Flame Class Rating	mm	UL 94 by E2P	1.6

ELECTRICAL

Surface Resistivity, ROA	Ohm	IEC 60093	1.78E+05
Volume Resistivity	Ohm-cm	IEC 60093	1.78E+05

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PARAMETER	SETTING	UNIT
Drying Temperature	75 - 85	°C
Drying Time	4 - 6	hrs
Maximum Moisture Content	0.2	%
Mold Temperature	70 - 90	°C
Rear - Zone 1 Temperature	260 280	°C
Middle - Zone 2 Temperature	270 - 280	°C
Front - Zone 3 Temperature	270 - 290	°C
Melt Temperature	270 - 290	°C

PROCESSING PARAMETERS: see above typical molding conditions.

DRYING: is not essential when material is delivered in sealed bags with moisture content below 0.2%.

BARRELS, SCREWS, MOULDS: use wear resisting steel or alloy such as bimetallic cylinders, nitrided screws.

USE OF REGRIND: the properties of the component should be checked in order to ascertain the maximum acceptable level of regrind.

SAFETY: please refer to Material Safety Datasheet

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