

**HiDura™ S3MG30H BK0835**

 Ascend Performance Materials Operations LLC - *Polyamide 610*
**General Information**
**Product Description**

HiDura S3MG30H BK0835 is a 30% glass fiber reinforced, heat stabilized polyamide 610 with 42% bio-based content for injection molding applications.

**General**

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• Heat Stabilizer
Features	• Chemical Resistant • Oil Resistant • Solvent Resistant • Heat Stabilized • Renewable Resource Content
Agency Ratings	• ASTM D4066 PA0720A4306 • ASTM D6779 PA0000A4356 • ISO 1043 PA610 GF30
Appearance	• Black
Forms	• Pellets
Resin ID	• PA610-GF30

**Properties <sup>1</sup>**

<b>Physical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Density	1.31	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 73°F, 0.0787 in	0.60	--	%	
Flow : 73°F, 0.0787 in	0.30	--	%	
Water Absorption (24 hr, 73°F)	0.40	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.0	--	%	ISO 62
Biobased Carbon Content	42	--	%	
<b>Mechanical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus (73°F)	1.32E+6	986000	psi	ISO 527-1
Tensile Stress (Break, 73°F)	22900	17400	psi	ISO 527-2
Tensile Strain (Break, 73°F)	4.4	7.6	%	ISO 527-2
Flexural Modulus (73°F)	1.22E+6	899000	psi	ISO 178
Flexural Stress (73°F)	31200	22000	psi	ISO 178
Poisson's Ratio (73°F)	0.38	--		ISO 527-2
<b>Impact</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Notched Impact Strength				ISO 179/1eA
-40°F	5.2	5.7	ft·lb/in <sup>2</sup>	
-22°F	6.2	6.2	ft·lb/in <sup>2</sup>	
73°F	8.6	9.5	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength				ISO 179/1eU
-40°F	46	41	ft·lb/in <sup>2</sup>	
-22°F	46	41	ft·lb/in <sup>2</sup>	
73°F	46	49	ft·lb/in <sup>2</sup>	
Notched Izod Impact Strength				ISO 180/1A
-40°F	5.7	5.7	ft·lb/in <sup>2</sup>	
-22°F	6.2	6.2	ft·lb/in <sup>2</sup>	
73°F	7.6	8.6	ft·lb/in <sup>2</sup>	
<b>Thermal</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (66 psi, Unannealed)	426	421	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	387	379	°F	ISO 75-2/A



Melting Temperature	437	--	°F	ISO 11357-3
CLTE - Flow (73 to 131°F, 0.0787 in)	1.2E-5	--	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F, 0.0787 in)	6.7E-5	--	in/in/°F	ISO 11359-2
<b>Electrical</b>	<b>Dry</b>	<b>Conditioned</b>	<b>Unit</b>	<b>Test Method</b>
Electric Strength (0.0394 in)	810	740	V/mil	IEC 60243-1

### Processing Information

Injection	Dry Unit
Drying Temperature	> 176 °F
Drying Time	> 4.0 hr
Rear Temperature	473 to 527 °F
Middle Temperature	509 to 554 °F
Front Temperature	518 to 572 °F
Nozzle Temperature	527 to 581 °F
Processing (Melt) Temp	491 to 572 °F
Mold Temperature	158 to 212 °F

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

