Product Information

Aug 2013

Ultramid® 8253 HS BK-102
Polyamide 6

BASF The Chemical Company

Product Description

Ultramid 8253 HS BK-102 is a heat stabilized, pigmented black, impact modified type 6 nylon graft copolymer developed for both injection molding and extrusion applications. It exhibits varying levels of toughness and flexibility combined with excellent thermal and chemical properties.

Applications

Ultramid 8253 HS BK-102 is generally recommended for applications such as plugs, receptacles, flexible connector covers, weed trimmer components, clips fasteners, flanges, key housings as well as many flexible tubing applications.

PHYSICAL	ASTM Test Method	Property Value	
Specific Gravity	D-792	1.09	
Mold Shrinkage (1/8" bar, in/in)		0.012	
Moisture, %	D-570		
(24 Hour)		1.5	
(50% RH)		2.3	
(Saturation)		8.1	
MECHANICAL	**ASTM Test Method**	**Dry**	**Conditioned**
Tensile Strength, Yield, MPa (psi)	D-638		
23C (73F)		65 (9,430)	-
Elongation, Yield, %	D-638		
23C (73F)		4	-
Elongation, Break, %	D-638		
23C (73F)		>100	-
Flexural Modulus, MPa (psi)	D-790		
23C (73F)		2,270 (329,000)	-
Flexural Strength, MPa (psi)	D-790		
23C (73F)		85 (12,300)	-
Rockwell Hardness, R Scale	D-785	82	-
IMPACT	**ASTM Test Method**	**Dry**	**Conditioned**
Notched Izod Impact, J/M (ft-lbs/in)	D-256		
23C (73F)		150 (2.8)	-
Drop Weight Impact, ft-lbs, 23C	BASF Drop Weight Impact Test	200	-
THERMAL	**ASTM Test Method**	**Dry**	**Conditioned**
Melting Point, C(F)	D-3418	220 (428)	-
Heat Deflection @ 264 psi (1.8 MPa) C(F)	D-648	60 (140)	-
Coef. of Linear Thermal Expansion, mm/mm C (in/in F)	E-831	0.99 X10-4	-
UL RATINGS	**UL Test Method**	**Property Value**	
Flammability Rating, 1.5mm	UL94	HB	
Relative Temperature Index, 1.5mm	UL746B		
Mechanical w/o Impact, C		105	
Mechanical w/ Impact, C		105	

ASF Corporation
ngineering Plastics
509 Biddle Avenue
yandotte, MI 48192

Electrical, C	105

Processing Guidelines

Material Handling
Max. Water content: 0.2%
Product is supplied in sealed containers and drying prior to molding is not required. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 80 degC (176 degF) is recommended. Drying time is dependent on moisture level, but 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Material Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile
Melt Temperature 240-270 degC (464-518 degF)
Mold Temperature 60-85 degC (140-185 degF)
Injection and Packing Pressure 35-125 bar (500-1500 psi)

Mold Temperatures
A mold temperature of 60-85 degC (140-185 degF) is recommended, but temperatures of as low as 10 degC (50 degF) can be used where applicable.

Pressures
Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final part and can be used effectively in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off.

Fill Rate
Fast fill rates are recommended to ensure uniform melt delivery to the cavity and prevent premature freezing.

Note