

Ultramid® 8270 HS

Polyamide 6

BASF Corporation

Message:

Ultramid 8270 HS is a thermally modified PA6 blow molding compound exhibiting exceptional toughness and melt strength ideally suited for blow molding, profile extrusion, and other applications requiring extra high melt viscosity. It exhibits excellent permeability and chemical resistance to oils, hydrocarbons and most solvents.

Applications

Ultramid 8270 HS is generally recommended for applications such as industrial containers, small gasoline tanks, and automotive under hood reservoirs.

General Information				
UL YellowCard		E36632-231141		
Additive		Heat Stabilizer		
Features		Good Chemical Resistance		
		Good Melt Strength		
		Heat Stabilized		
		Hydrocarbon Resistant		
		Oil Resistant		
		Solvent Resistant		
		Ultra High Toughness		
		Ultra High Viscosity		
Uses		Automotive Under the Hood		
		Fuel Tanks		
		Industrial Containers		
Agency Ratings		EC 1907/2006 (REACH)		
RoHS Compliance		RoHS Compliant		
Forms		Pellets		
Processing Method		Blow Molding		
		Profile Extrusion		
Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.13	--	g/cm ³	ASTM D792
Water Absorption				ASTM D570
24 hr	1.6	--	%	
Saturation	9.2	--	%	
Equilibrium, 50% RH	2.6	--	%	
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness (R-Scale)	99	--		ASTM D785
Mechanical	Dry	Conditioned	Unit	Test Method

Tensile Strength				ASTM D638
Yield, -40°C	138	119	MPa	
Yield, 23°C	84.0	46.0	MPa	
Yield, 121°C	24.0	--	MPa	
Tensile Elongation				ASTM D638
Yield, 23°C	4.0	--	%	
Break, 23°C	> 100	--	%	
Flexural Modulus				ASTM D790
-40°C	3160	3900	MPa	
23°C	2900	760	MPa	
65°C	435	--	MPa	
90°C	310	--	MPa	
121°C	260	--	MPa	
Flexural Strength				ASTM D790
-40°C	179	176	MPa	
23°C	114	37.0	MPa	
65°C	30.0	--	MPa	
90°C	20.0	--	MPa	
121°C	17.0	--	MPa	
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact				ASTM D256
-40°C	53	48	J/m	
23°C	53 J/m	No Break		
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ASTM D648
0.45 MPa, Unannealed	169	--	°C	
1.8 MPa, Unannealed	63.0	--	°C	
Peak Melting Temperature	220	--	°C	ASTM D3418
CLTE - Flow	1.4E-4	--	cm/cm/°C	ASTM E831
RTI Elec				UL 746
0.750 mm	65.0	--	°C	
6.00 mm	65.0	--	°C	
RTI Imp				UL 746
0.750 mm	65.0	--	°C	
6.00 mm	65.0	--	°C	
RTI Str				UL 746
0.750 mm	65.0	--	°C	
6.00 mm	65.0	--	°C	
Flammability	Dry	Conditioned		Test Method
Flame Rating				UL 94
0.750 mm	HB	--		

6.00 mm	V-2	--	
Additional Information	Dry	Conditioned	Unit
Blow Molding Drying Temperature	80	--	°C
Blow Molding Drying Time	2.0 to 4.0	--	hr
Blow Molding Melt Temperature	245 to 260	--	°C
Blow Molding Moisture Content	< 0.15	--	%
Blow Molding Mold Temperature	60	--	°C
Blow-up Ratio	2:1	--	

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