Ultramid® 8272G HS BK-102

Polyamide 6

BASF Corporation

Message:

Ultramid 8272G HS BK-102 is a 12% glass fiber reinforced, black pigmented, thermally modified, PA6 blow molding compound offering an excellent balance of engineering properties combined with the melt strength ideally suited for blow molding and other applications requiring ultra high melt viscosity. It exhibits improved strength, stiffness and creep resistance compare to standard blow molding grades. Outstanding permeability and chemical resistance to oils, hydrocarbons and most solvents are other advantages along with excellent stiffness ad the ability to fabricate complex shapes for cost effective metal replacements.
Applications
Ultramid 8272G HS BK-102 is designed for blow molding applications requiring improved short term thermal performance as well as extrusions. It is ideal for air ducts, reservoirs and covers.

General Information	
Filler / Reinforcement	Glass Fiber,12% Filler by Weight
Additive	Heat Stabilizer
Features	Good Chemical Resistance Good Creep Resistance Good Melt Strength Good Stiffness Good Strength Heat Stabilized Hydrocarbon Resistant Oil Resistant Solvent Resistant Ultra High Viscosity
Uses	Blow Molding Applications
Agency Ratings	EC 1907/2006 (REACH)
RoHS Compliance	RoHS Compliant
Appearance	Black
Forms	Pellets
Processing Method	Blow Molding Extrusion
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1) Secant Modulus vs. Strain (ISO 11403-1) Shear Modulus vs. Temperature (ISO 11403-1)

Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.22	--	g/cm³	ASTM D792, ISO 1183
Molding Shrinkage - Flow (3.18 mm)	0.30	--	%	

Water Absorption				
24 hr	1.4	--	%	ASTM D570
23°C, 24 hr	1.4	--	%	ISO 62
Saturation	8.3	--	%	ASTM D570
Saturation, 23°C	8.3	--	%	ISO 62
Equilibrium, 50% RH	2.3	--	%	ASTM D570
Equilibrium, 23°C, 50% RH	2.3	--	%	ISO 62
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	121	--		ASTM D785
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus				ISO 527-2
-40°C	6370	6400	MPa	
23°C	5220	3100	MPa	
80°C	2100	1900	MPa	
121°C	1450	1500	MPa	
Tensile Strength				ASTM D638, ISO 527-2
Break, -40°C	115	110	MPa	
Break, 23°C	110	60.0	MPa	
Break, 121°C	45.0	25.0	MPa	
Tensile Elongation				
Break, -40°C	2.0	2.0	%	ASTM D638
Break, 23°C	3.0	--	%	ASTM D638, ISO 527-2
Break, 121°C	15	20	%	ASTM D638
Flexural Modulus				
-40°C	5200	5580	MPa	ASTM D790
23°C	4650	1970	MPa	ASTM D790
121°C	995	--	MPa	ASTM D790
23°C	4300	--	MPa	ISO 178
Flexural Strength				ASTM D790
-40°C	200	265	MPa	
23°C	165	80.0	MPa	
121°C	50.0	--	MPa	
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	7.1	--	kJ/m^2	ISO 179
Notched Izod Impact				
-40°C	40	40	J/m	ASTM D256
23°C	45	160	J/m	ASTM D256
23°C	5.9	--	kJ/m^2	ISO 180
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**

Heat Deflection Temperature				
0.45 MPa, Unannealed	210	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	197	--	°C	ASTM D648
1.8 MPa, Unannealed	170	--	°C	ISO 75-2/A
Peak Melting Temperature	220	--	°C	ASTM D3418, ISO 3146
CLTE				
Flow	9.7E-5	--	cm/cm/°C	ASTM E831
Flow	2.8E-5	--	cm/cm/°C	
Transverse	7.2E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity				
1.50 mm	> 1.0E+13	> 1.0E+13	ohms·cm	ASTM D257
--	> 1.0E+13	> 1.0E+13	ohms·cm	IEC 60093
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	2.0:1.0	--		

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China