Technical Data Sheet

DuraGrip DGR-6160BKBLK

Thermoplastic Elastomer

Product Description

DuraGrip 6160BK is designed to be a special purpose Melt Processible Elastomer (MPE) that is easy to use in injection molding and extrusion processes. DGR 6160BK has an excellent soft touch feel and will Bond to Nylon, ABS, PC, PC/ABS. *DuraGrip* 6100 series is hygroscopic and requires drying prior to use.

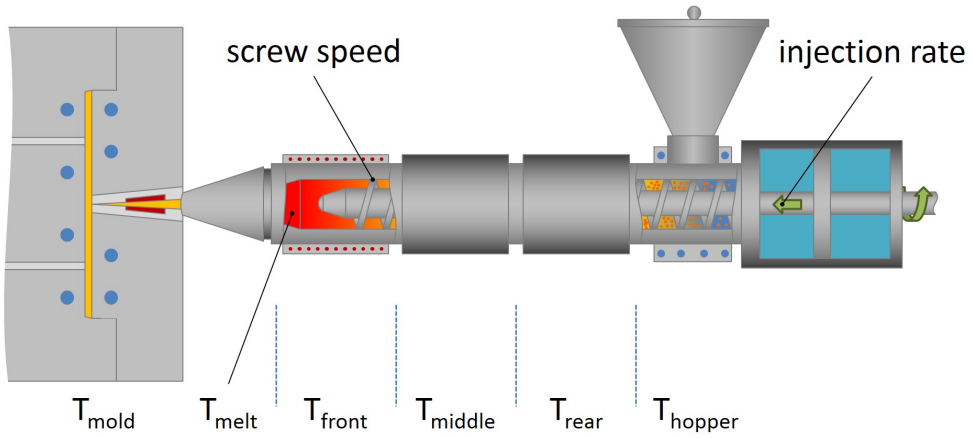
Regulatory Status

For regulatory compliance information, see DGR-6160BKBLK Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial: Active
Availability	Asia-Pacific; Europe; North America
Processing Method	Extrusion; Injection Molding
Attribute	Good Adhesion
Forms	Pellets

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density	1.07	g/cm³	ISO 1183
Density - Specific Gravity	1.07	g/cm³	ASTM D792
Change in Volume			
(in Reference Fuel B, 24 °C, 168 hr)	52	%	ASTM D471
(in Reference Fuel B, 24 °C, 168 hr)	52	%	ISO 1817
(in ASTM #1 Oil, 70 °C, 168 hr)	12	%	ASTM D471
(in ASTM #1 Oil, 70 °C, 168 hr)	12	%	ISO 1817
(in IRM 903 Oil, 70 °C, 168 hr)	74	%	ISO 1817
(in IRM 903 Oil, 70 °C, 168 hr)	74	%	ASTM D471
(in Water, 70 °C, 168 hr)	2.0	%	ASTM D471
(in Water, 70 °C, 168 hr)	2.0	%	ISO 1817
Melt Viscosity, (190 °C, 300 sec^-1)	354	Pa·s	ASTM D3835
Mechanical			
Change in Ultimate Elongation in Air			
(70 °C, 168 hr)	4.0	%	ASTM D573
(100 °C, 168 hr)	18	%	ASTM D573
Tensile Stress at 100%	2.21	MPa	ASTM D412
(23 °C)	2.21	MPa	ISO 37

Change in Tensile Strength in Air			
(70 °C, 168 hr)	11	%	ASTM D573
(70 °C, 168 hr)	11	%	ISO 188
(70 °C, 168 hr, 100%)	2.0	%	ISO 188
(70 °C, 168 hr, 100%)	2.0	%	ASTM D573
(100 °C, 168 hr)	40	%	ASTM D573
(100 °C, 168 hr)	40	%	ISO 188
(100 °C, 168 hr, 100%)	-5.0	%	ISO 188
(100 °C, 168 hr, 100%)	-5.0	%	ASTM D573
Tensile Set, (100%)	4	%	ASTM D412
Tensile Strength at Yield, (23 °C)	6.62	MPa	ASTM D412
Tensile Stress at Yield, (23 °C)	6.62	MPa	ISO 37
Change in Tensile Strain at Break			
(168 hr, 70 °C)	4.0	%	ISO 1817
(168 hr, 100 °C)	18	%	ISO 1817
Tensile Strain at Break, (23 °C)	350	%	ISO 37
Tensile Elongation at Break	350	%	ASTM D412
Tear Strength, (24 °C, Die C)	29.4	kN/m	ASTM D624
Impact			
Ductile/Brittle Transition Temperature	-65	°C	ASTM D746
Hardness			
Shore Hardness, (Shore A, 5 sec)	58		ISO 868
Durometer Hardness, (Shore A, 5 sec)	58		ASTM D2240
Additional Information			
Compression Set			
(24 °C, 22 hr, Method B)	21	%	ASTM D395
(100 °C, 22 hr, Method B)	91	%	ASTM D395
(24 °C, 22 hr)	21	%	ISO 815
(100 °C, 22 hr)	91	%	ISO 815
(70 °C, 22 hr, Method B)	82	%	ASTM D395
(70 °C, 22 hr)	82	%	ISO 815
Taber Abrasion Resistance, (CS-17 Wheel, 1.0E+6 g, 1000 Cycles)	189	mg	ASTM D1044



Injection Parameters	Nominal Value	Units

Drying Time	3	hr
Drying Temperature	66	°C
Nozzle Temperature	227 to 249	°C
Screw Speed	50 to 150	rpm
Processing (Melt) Temp	227 to 254	°C
Front Temperature	227 to 238	°C
Middle Temperature	216 to 227	°C
Rear Temperature	204 to 221	°C
Mold Temperature	43 to 54	°C
Injection Pressure	2.76 to 5.52	MPa

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

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