

DuraGrip DGR-6185BKBLK

LyondellBasell Industries - Thermoplastic Elastomer

General Information

Product Description

DuraGrip 6185BK is a black, special purpose Melt Processible Elastomer (MPE) that is easy to use in injection molding and extrusion processes. DGR 6185BK has an excellent soft touch feel and will Bond to varying Nylons, ABS, PC, PC/ABS. DuraGrip™ 6100 series is hygroscopic and requires drying prior to use.

General

Features	• Good Adhesion	• Soft
Appearance	• Black	
Processing Method	• Extrusion	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.14	g/cm ³	ASTM D471
Density	1.14	g/cm ³	ISO 2781
Mechanical	Nominal Value	Unit	Test Method
Taber Abrasion Resistance 1000 Cycles, 1000 g, CS-17 Wheel	160	mg	ASTM D3389
Elastomers	Nominal Value	Unit	Test Method
Tensile Set (100% Strain)	19	%	ASTM D412
Tensile Stress (100% Strain, 73°F)	1460	psi	ASTM D412
Tensile Stress (100% Strain, 73°F)	1460	psi	ISO 37
Tensile Strength (Yield, 73°F)	2130	psi	ASTM D412
Tensile Stress (Yield, 73°F)	2130	psi	ISO 37
Tensile Elongation (Break, 73°F)	260	%	ASTM D412
Tensile Elongation (Break, 73°F)	260	%	ISO 37
Tear Strength ² (75°F)	310	lb/in	ASTM D624
Compression Set			ASTM D395
75°F, 22 hr	23	%	
158°F, 22 hr	65	%	
212°F, 22 hr	82	%	
Compression Set			ISO 815
75°F, 22 hr	23	%	
158°F, 22 hr	65	%	
212°F, 22 hr	82	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A, 5 sec)	85		ASTM D2240
Shore Hardness (Shore A, 5 sec)	85		ISO 48-4
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-60.0	°F	ASTM D746
Brittleness Temperature	-60.0	°F	ISO 812

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Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air			ASTM D573
158°F, 168 hr	-16	%	
100% Strain, 158°F, 168 hr	-4.0	%	
212°F, 168 hr	-19	%	
100% Strain, 212°F, 168 hr	-6.0	%	
Change in Tensile Strength in Air			ISO 188
158°F, 168 hr	-16	%	
100% Strain 158°F, 168 hr	-4.0	%	
212°F, 168 hr	-19	%	
100% Strain 212°F, 168 hr	-6.0	%	
Change in Ultimate Elongation in Air			ASTM D573
158°F, 168 hr	-15	%	
212°F, 168 hr	-21	%	
Change in Tensile Strain at Break in Air			ISO 188
158°F, 168 hr	-15	%	
212°F, 168 hr	-21	%	
Change in Volume			ASTM D471
75°F, 168 hr, in Reference Fuel B	87	%	
158°F, 168 hr, in ASTM #1 Oil	27	%	
158°F, 168 hr, in IRM 903 Oil	130	%	
158°F, 168 hr, in Water	1.0	%	
Change in Volume			ISO 1817
75°F, 168 hr, in Reference Fuel B	87	%	
158°F, 168 hr, in ASTM #1 Oil	27	%	
158°F, 168 hr, in IRM 903 Oil	130	%	
158°F, 168 hr, in Water	1.0	%	
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (374°F, 300 sec ⁻¹)	1060	Pa·s	ASTM D3835

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Desiccant Dryer	151	°F
Drying Time - Desiccant Dryer	3.0	hr
Rear Temperature	399 to 430	°F
Middle Temperature	421 to 441	°F
Front Temperature	441 to 460	°F
Nozzle Temperature	441 to 480	°F
Processing (Melt) Temp	441 to 489	°F
Mold Temperature	109 to 129	°F
Injection Pressure	149 to 500	psi
Screw Speed	25 to 100	rpm

Notes

¹ Typical properties: these are not to be construed as specifications.

² Die C