



Monprene® OM-16150 NAT XRD1 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Monprene OM-16150 NAT XRD1 is part of a series of adhesion-modified thermoplastic elastomers (available from 40 to 70 Shore A) designed for over-molding (insert and multi-shot) and co-extrusion onto polyamide (Nylon), including: PA 6, PA66, PA12, etc. These materials are well suited for overmolded seals or grips. Monprene OM-16150 NAT XRD1 offers several benefits including easy molding with a wide processing window.

General

Material Status	• Preliminary Data		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Chemical Resistant • Conformable • Ductile • Filled	• Good Colorability • Good Flexibility • Good Flow • Good Moldability • High Elasticity	• Lubricated • Medium Density • Medium Hardness • Soft
Uses	• Bonding • Consumer Applications	• Industrial Applications • Overmolding	• Soft Touch Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding	• Multi Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.972		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)	23	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength ² (Break)	487	psi	ASTM D412
Tensile Elongation ² (Break)	470	%	ASTM D412
Compression Set			ASTM D395
73°F, 22 hr	24	%	
158°F, 24 hr	51	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	47		
Shore A, 5 sec, Injection Molded	45		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	450 to 470	°F
Middle Temperature	470 to 490	°F

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Injection	Nominal Value	Unit
Front Temperature	490 to 510	°F
Nozzle Temperature	482 to 536	°F
Processing (Melt) Temp	482 to 536	°F
Mold Temperature	90 to 130	°F
Injection Pressure	5000 to 6000	psi
Injection Rate	Fast	
Holding Pressure	2800 to 3000	psi

Injection Notes

Drying is recommended to achieve a moisture level $\leq 0.08\%$. Dry the pellets for 2 to 4 hours at 185°F (85°C).

For overmolding to Nylon 6,6, use higher temperature settings than the recommended processing condition.

Nylon substrate must not be exposed to open air for long to avoid moisture adsorption.

Notes

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

² Die C, 20 in/min