

Technical Data

Product Description

Hifax EP140R

Hifax EP140R is the reactor made TPO grade manufactured by PMC. Hifax EP140R is a super impact copolymer particularly suitable for injection molding of high impact resistance required application and compounding base resin of automotive bumper fascia and containers.

Features: Excellent impact resistance at low temperature/ High flowability

Market: Automotive/Compounds, Consumer Products

Application: Automotives Bumper & Door trim/ High impact resistance required application/ Container

Generic TPO

This data represents typical values that have been calculated from all products classified as: Generic TPO

This information is provided for comparative purposes only.

General	Hifax EP140R	Generic TPO
Manufacturer / Supplier	<ul style="list-style-type: none"> PolyMirae 	<ul style="list-style-type: none"> Generic
Generic Symbol	<ul style="list-style-type: none"> TPO 	<ul style="list-style-type: none"> TPO
Material Status	<ul style="list-style-type: none"> Commercial: Active 	<ul style="list-style-type: none"> Commercial: Active
Literature ¹	<ul style="list-style-type: none"> Technical Datasheet (English) Technical Datasheet (English) 	--
Search for UL Yellow Card	<ul style="list-style-type: none"> PolyMirae Hifax 	--
Availability	<ul style="list-style-type: none"> Asia Pacific 	<ul style="list-style-type: none"> Africa & Middle East Asia Pacific Europe Latin America North America
Features	<ul style="list-style-type: none"> Block Copolymer High Flow Low Temperature Impact Resistance 	--
Uses	<ul style="list-style-type: none"> Automotive Applications Automotive Bumper Compounding Consumer Applications Containers 	--
RoHS Compliance	<ul style="list-style-type: none"> Contact Manufacturer 	--
Processing Method	<ul style="list-style-type: none"> Injection Molding 	--



Physical	Hifax EP140R	Generic TPO	Unit	Test Method
Density / Specific Gravity				
--	--	0.869 to 1.11	g/cm ³	ASTM D792
--	--	0.899 to 1.23	g/cm ³	ISO 1183
--	0.900	0.899 to 1.23	g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR)				
230°C/2.16 kg	20	0.50 to 23	g/10 min	ASTM D1238
230°C/2.16 kg	--	0.80 to 24	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	--	4.0 to 22	cm ³ /10min	ISO 1133
Molding Shrinkage				
Flow	--	0.77 to 1.6	%	ASTM D955
--	--	6.0E-3 to 1.5	%	ISO 294-4
Mechanical	Hifax EP140R	Generic TPO	Unit	Test Method
Tensile Modulus	--	854 to 2800	MPa	ISO 527-1
Tensile Strength				
Yield	13.7	6.30 to 38.5	MPa	ASTM D638
Yield	--	15.4 to 35.0	MPa	ISO 527-2
Break	--	6.89 to 62.1	MPa	ASTM D638
--	--	10.3 to 30.0	MPa	ASTM D638
--	--	18.0 to 25.2	MPa	ISO 527-2
Tensile Elongation				
Yield	7.0	6.0 to 18	%	ASTM D638
Yield	--	3.0 to 10	%	ISO 527-2
Break	--	5.0 to 500	%	ASTM D638
Break	--	4.0 to 41	%	ISO 527-2
Flexural Modulus				
--	637	113 to 2570	MPa	ASTM D790
--	--	782 to 4050	MPa	ISO 178
Impact	Hifax EP140R	Generic TPO	Unit	Test Method
Charpy Notched Impact Strength	--	2.0 to 24	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength	--	4.2 to 63	kJ/m ²	ISO 179
Notched Izod Impact				
--	--	28 to 540	J/m	ASTM D256
23°C	No Break	--		ASTM D256
--	--	1.2 to 54	kJ/m ²	ISO 180
Notched Izod Impact (Area)	--	1.26 to 9.98	kJ/m ²	ASTM D256
Instrumented Dart Impact	--	16.0 to 34.0	J	ASTM D3763
Hardness	Hifax EP140R	Generic TPO	Unit	Test Method
Rockwell Hardness	--	49 to 105		ASTM D785
Durometer Hardness				
--	--	65 to 98		ASTM D2240
--	--	49 to 99		ISO 868



Thermal	Hifax EP140R	Generic TPO	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	--	79.1 to 159	°C	ASTM D648
0.45 MPa, Unannealed	--	67.0 to 128	°C	ISO 75-2/B
1.8 MPa, Unannealed	--	52.5 to 54.0	°C	ASTM D648
1.8 MPa, Unannealed	--	47.9 to 65.3	°C	ISO 75-2/A
Vicat Softening Temperature				
--	--	128 to 151	°C	ASTM D1525
--	--	58.0 to 154	°C	ISO 306

Electrical	Hifax EP140R	Generic TPO	Unit	Test Method
Surface Resistivity				
--	--	1.0E+2 to 1.3E+8	ohms	ASTM D257
--	--	1.0E+2 to 1.3E+6	ohms	IEC 60093
Volume Resistivity				
--	--	5.0 to 1.3E+5	ohms·cm	IEC 60093

Injection	Hifax EP140R	Generic TPO	Unit
Drying Temperature	--	75 to 95	°C
Drying Time	--	2.0 to 2.1	hr
Rear Temperature	--	175 to 213	°C
Middle Temperature	--	190 to 213	°C
Front Temperature	--	190 to 221	°C
Nozzle Temperature	--	195 to 219	°C
Processing (Melt) Temp	--	190 to 230	°C
Mold Temperature	--	29 to 70	°C
Injection Pressure	--	5.86 to 70.0	MPa
Back Pressure	--	0.517 to 1.23	MPa
Clamp Tonnage	--	4.1 to 4.5	kN/cm ²

Injection Notes

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Extrusion	Hifax EP140R	Generic TPO	Unit
Drying Temperature	--	68 to 235	°C
Drying Time	--	2.0	hr
Cylinder Zone 1 Temp.	--	170 to 210	°C
Cylinder Zone 3 Temp.	--	190 to 220	°C
Cylinder Zone 5 Temp.	--	190 to 230	°C

Extrusion Notes

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Notes

- ¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.
- ² Typical properties: these are not to be construed as specifications.



Where to Buy

Supplier

Hifax EP140R

PolyMirae
Seoul, Seoul South Korea
Telephone: +82-2-2167-8955
Web: <http://www.polymirae.com/>

Generic TPO

Generic

Distributor

Hifax EP140R

Please contact the supplier to find a distributor for Hifax EP140R

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