

TechResin[®] 2320

Natural Medium Density Hexene Copolymer

TechResin[®] 2320 is a high performance copolymer that is designed for pressure pipe and conduit applications. It has outstanding pipe ring ESCR and it incorporates a UV stabilizer.

TechResin[®] 2320 meets all requirements of ASTM D4976 – PE 225.

When blended with the approved color concentrates, TechResin[®] 2320 has a cell class of 234373E per ASTM D3350-05, is listed by PPI as a PE2708 material with HDB's of 1,250 psi @ 73°F and 1,000 psi @ 140°F, meets the requirements of CAN/CSA Standard B137.4-02 for gas pipe and NSF Standard 14/61 for use with potable water. TechResin[®] 2320 also qualifies as a PE2406 material under the old ASTM D3350-02a and PPI standards. TechResin[®] 2320 also qualifies as a PE80 material per ISO 9080.

Suggested Applications:

Water Pipe; Pipe for Gas Distribution and Collection; Oilfield and Other Industrial Pipe

Nominal Physical Properties:

PROPERTY* (Natural Resin)	ASTM TEST METHOD	ENGLISH		SI	
		Unit	Value	Unit	Value
Density	D1505	g/cc	0.939	g/cc	0.939
Melt Index, Condition E, 190°C/2.16 kg (MI)	D1238	g/10 min.	0.20	g/10 min.	0.20
Condition F, 190°C/21.6 kg (HLMI)		g/10 min.	20.0	g/10 min.	20.0
Environmental Stress Crack Resistance (ESCR) Condition A, B, C (100% Igepal), F ₅₀	D1693	h	>5000	h	>5000
Tensile Yield Strength, @ Yield	D638	psi.	2800	MPa	19
@ Break	Type IV	psi.	4800	MPa	33
2" (50 mm) per min.					
Ultimate Elongation, 2" (50 mm) per min.	D638				
	Type IV	%	>500	%	>500
Flexural Modulus	D3350	psi.	90,000	MPa	620
	D790	psi.	110,000	MPa	760
Brittleness Temperature	D746	°F	<-130	°C	<-90
Pent Slow Crack Growth	F1473	h	>1000	h	>1000

* Physical properties reported herein were determined on compression molded specimens prepared in accordance with Procedure C of ASTM D1928.

The nominal properties reported herein are typical of the product but do not reflect normal testing variance and therefore should not be used for specification purposes.

Published 02/01/05, Revised 01/12/16

MDT does not guarantee reproduction of these results. This is not a Certificate of Analysis and the customer is responsible for testing and confirming the Material Properties before making commercial use of the product to ensure that the product is fit for the intended application and that the product can be used, and any waste material disposed of, safely, properly, and legally based on the customer's or other's circumstances. Determination of the suitability and fitness of the product for any particular application is the sole responsibility of the purchaser of the product. This information is solely intended for informational purposes. This material confirmation relates solely to the product listed above and not as incorporated in any product or used in any process. Material Difference Technology makes no warranty or representation of any kind, regarding the information given or the products described, and expressly disclaims all implied warranties and conditions of quality, merchantability and suitability or fitness for a particular purpose. The customer or other user of the product assumes all risk and liability arising out of the use of the product, whether used alone or in combination with other materials. The presence absence or lack of information herein with respect to any particular international, national, federal, state or local law, statute, regulation, order or rule should not be construed to mean that product is regulated under, complies with or is exempt from such international, national, federal state or local law, statute, regulation, order or rule.