

Total Lacqtene® 2001 TBK 46 HDPE pipe (discontinued **)

Category : Polymer , Thermoplastic , Polyethylene (PE) , HDPE , High Density Polyethylene (HDPE), Pipe Grade

Material Notes:

LACQTENE® 2001 TBK 46 is a high density polyethylene produced by the gas phase polymerization process. LACQTENE® 2001 TBK 46 is a black compound especially developed for pressure pipe for gas and potable water. LACQTENE® 2001 TBK 46 is best processed between 190 and 230°C. Information provided provided by Total Petrochemicals. Total Petrochemicals includes former Fina and Atofina plastics product lines.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Total-Lacqtene-2001-TBK-46-HDPE-pipe-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	0.955 g/cc	0.0345 lb/in ³	ISO 1183
Viscosity	1.60e+6 cP @Shear Rate 100 1/s, Temperature 190 °C	1.60e+6 cP @Shear Rate 100 1/s, Temperature 374 °F	ATOFINA research test
Environmental Stress Crack Resistance	>= 700 hour	>= 700 hour	ASTM D1693
Oxidative Induction Time (OIT)	>= 20 min	>= 20 min	210°C; EN 728
	>= 30 min	>= 30 min	200°C; EN 728
Carbon Black Loading	2.0 - 2.5 %	2.0 - 2.5 %	ISO 6964
Melt Flow	0.10 g/10 min @Load 2.16 kg	0.10 g/10 min @Load 4.76 lb	ISO 1133
	0.45 g/10 min @Load 5.00 kg	0.45 g/10 min @Load 11.0 lb	ISO 1133
High Load Melt Index	12 g/10 min @Load 21.6 kg	12 g/10 min @Load 47.6 lb	ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	61	61	DIN 53505
Tensile Strength at Break	34.0 MPa	4930 psi	ISO 527
Tensile Strength, Yield	24.0 MPa	3480 psi	ISO 527
Elongation at Break	>= 700 %	>= 700 %	ISO 527
Elongation at Yield	9.0 %	9.0 %	ISO 527

Modulus of Elasticity Mechanical Properties	1.05 GPa Metric	152 ksi English	ISO 178 Comments
Flexural Modulus	1.00 GPa	145 ksi	ASTM D 790

Thermal Properties	Metric	English	Comments
Heat of Fusion	175 J/g	75.3 BTU/lb	DSC
CTE, linear	160 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	88.9 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 20.0 $^\circ\text{C}$	@Temperature 68.0 $^\circ\text{F}$	
Specific Heat Capacity	2.00 J/g- $^\circ\text{C}$	0.478 BTU/lb- $^\circ\text{F}$	DSC
	2.60 J/g- $^\circ\text{C}$	0.621 BTU/lb- $^\circ\text{F}$	DSC
Thermal Conductivity	0.400 W/m-K	2.78 BTU-in/hr-ft 2 - $^\circ\text{F}$	DIN 52612
	0.200 W/m-K	1.39 BTU-in/hr-ft 2 - $^\circ\text{F}$	DIN 52612
	@Temperature 150 $^\circ\text{C}$	@Temperature 302 $^\circ\text{F}$	
Melting Point	128 - 131 $^\circ\text{C}$	262 - 268 $^\circ\text{F}$	crystalline; DSC
Vicat Softening Point	127 $^\circ\text{C}$	261 $^\circ\text{F}$	ISO 306

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00\text{e}+16$ ohm-cm	$\geq 1.00\text{e}+16$ ohm-cm	IEC 93
Dielectric Constant	2.4	2.4	IEC 250
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dielectric Strength	18.0 kV/mm	457 kV/in	IEC 243

Descriptive Properties	Value	Comments
Food Status	This material conforms to both European and American Food contact regulations.	

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