

# CERTENE™ HHP-0449

High Density Polyethylene  
Muehlstein

Message:

HHP-0449 is a certified prime grade Medium Molecular Weight designed for EXTRUSION of PIPE sized up to diameter 10 in (250 mm). HHP-0449 features easy processability, good Impact strength and toughness, good Rigidity, and high ESCR. HHP-0449 recommended applications include corrugated cable duct, protective conduit, cable and telecommunications conduit, and other tubing NON pressure applications. HHP-0449 processing temperature is 355° to 380°F (180° to 195°C). HHP-0449 complies with FDA regulation 21CFR 177.520 (c) 3.2a and most international regulations concerning the Polyethylene use in contact with food articles.

General Information			
Features	Rigidity, high		
	High ESCR (Stress Cracking Resistance)		
	Impact resistance, good		
	Workability, good		
	Good toughness		
	Compliance of Food Exposure		
	Medium molecular weight		
Uses	Bellows		
	Catheter		
	Piping system		
	Pipe fittings		
Agency Ratings	FDA 21 CFR 177.1520(c) 3.2a		
Forms	Particle		
Processing Method	Pipeline extrusion molding		
Physical	Nominal Value	Unit	Test Method
Density	0.949	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.40	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance <sup>1</sup> (50°C, 1.75 mm, 100% Igepal, Compression Molded, F50)	> 1000	hr	ASTM D1693B
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield, Compression Molded)	24.0	MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break, Compression Molded)	850	%	ASTM D638
Flexural Modulus - 1% Secant <sup>4</sup> (Compression Molded)	1140	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, Compression Molded)	80	J/m	ASTM D256

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	72.0	°C	ASTM D648
Brittleness Temperature	< -100	°C	ASTM D746
Vicat Softening Temperature	124	°C	ASTM D1525
Additional Information	Nominal Value	Test Method	
Unit classification	326420A	ASTM D3350	
Test specimens from compression molded plaque according to ASTM D 1928 Procedure C.			
Extrusion	Nominal Value	Unit	
Melt Temperature	180 - 195	°C	
NOTE			
1.	Notched Bent Strip		
2.	50 mm/min		
3.	50 mm/min		
4.	1.3 mm/min		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

