

INEOS HDPE K44-15-186

High Density Polyethylene Copolymer

INEOS Olefins & Polymers USA

Technical Data

Product Description

K44-15-186 is a blue high-density polyethylene copolymer designed specifically for extrusion of pipe by blending K44-15-122 natural resin with G38-70C BLU II concentrate or an approved equivalent. It has NSF Standard 14 certification and complies with ANSI/NSF Standard 61 health effects requirements and is recognized by the Plastic Pipe Institute as having a PE 3608 (formerly PE 3408) rating.

General

Material Status	• Commercial: Active
Literature ¹	• Processing - Injection Molding (English) • Technical Datasheet (English)
Search for UL Yellow Card	• INEOS Olefins & Polymers USA
Availability	• North America
Features	• Copolymer • High Density
Uses	• Piping
Agency Ratings	• NSF 14 • NSF 61 • PPI PE-3408
RoHS Compliance	• Contact Manufacturer
Appearance	• Blue
Forms	• Pellets
Processing Method	• Extrusion • Pipe Extrusion

Physical	Nominal Value Unit	Test Method
Density	0.944 g/cm ³	ASTM D4883
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	13 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance		
--	> 2000 hr	ASTM D1693B
--	> 5000 hr	ASTM D1693C
Mechanical	Nominal Value Unit	Test Method
Tensile Strength ³		ASTM D638
Yield	22.8 MPa	
Break	31.0 MPa	
Tensile Elongation ³ (Break)	> 800 %	ASTM D638
Flexural Modulus - 2% Secant ⁴	827 MPa	ASTM D790
Hydrostatic Design Basis (23°C)	11.0 MPa	ASTM D2837
Impact	Nominal Value Unit	Test Method
Notched Izod Impact	320 J/m	ASTM D256
Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	68	ASTM D2240
Thermal	Nominal Value Unit	Test Method
Brittleness Temperature	-118 °C	ASTM D746
Vicat Softening Temperature	126 °C	ASTM D1525
Additional Information	Nominal Value Unit	Test Method
Cell Classification	345464E	ASTM D3350
PENT - Notch Tensile	> 30 hr	ASTM F1473

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.

³ 51 mm/min

⁴ Method I (3 point load)