



K44-15-123 Polyethylene Copolymer

K44-15-123 is a black high density polyethylene copolymer designed specifically for extrusion of potable water, natural gas, industrial, and mining pipe. It has NSF Standard 14 certification and complies with ANSI/NSF Standard 61 health effects requirements, is certified to CSA Standard B137.1-02 and B137.4-02, and is recognized by the Plastic Pipe Institute as having a pipe material designation code of PE 3408 and PE 80. The natural version of this resin is available as K44-15-122.

Typical Properties¹

	Values		ASTM Method
	English Units	SI Units	
Density (Natural)	—	0.944 g/cc	D 4883
Density (Black)	—	0.955 g/cc	
Melt Index ²	—	12.5 g/10 min	D 1238
Tensile Strength			
@ Yield (2 in/min)	3300 psi	22.8 MPa	D 638
@ Break (2 in/min)	4500 psi	31.0 MPa	D 638
Elongation			
@ Break (2 in/min)	>800%	>800%	D 638
Flexural Modulus ³	120,000 psi	827 MPa	D 790
Notched Izod Impact Strength	6 ft-lbf/in	0.32 kJ/m	D 256
Hardness (Shore D)	68	68	D 2240
Vicat Softening Point	259 °F	126 °C	D 1525
Brittleness Temperature	<-180 °F	<-118 °C	D 746
Hydrostatic Design Basis			
@ 23 °C	1600 psi	11.0 MPa	D 2837
@ 60 °C	800 psi	5.5 MPa	D 2837
Minimum Required Strength	—	8.0 MPa	ISO 9080
Environmental Stress			
Crack Resistance ⁴	>2000 hrs	>2000 hrs	D 1693
Environmental Stress			
Crack Resistance ⁵	>5000 hrs	>5000 hrs	D 1693
Pipe Ring ESCR ⁶	>5000 hrs	>5000 hrs	F 1248
Notch Tensile (PENT)	>100 hrs	>100 hrs	F 1473
Carbon Black Concentration	2.3%	2.3%	D 1603
Cell Classification	345464C	345464C	D 3350

¹ Typical properties will vary within specification limits.

² 190° C/21600 g

³ 2% Secant-Method 1

⁴ Condition B, 10%

⁵ Condition C

⁶ Two inch, SIDR 19

Regulatory Information

The product and uses described herein may require global product registrations and notifications for chemical inventory listings, or for use in food contact or medical devices. For further information, send an e-mail to: msds@innovene.com.

Health and Safety Information

The product described herein may require precautions in handling and use because of toxicity, flammability, or other consideration. The available product health and safety information for this material is contained in the Material Safety Data Sheet (MSDS) that may be obtained by calling +1-888-260-6737 (Toll Free-North America), or by sending an e-mail to: msds@innovene.com. Before using any material, a customer is advised to consult the MSDS for the product under consideration for use.

The Material Safety Data Sheet for this product contains shipping descriptions and should be consulted, before transportation, as a reference in determining the proper shipping description. If the material shipped by Innovene is altered or modified, different shipping descriptions may apply and the MSDS of the original material should not be used.

For additional information, samples, pricing and availability, please contact:

Innovene

Polymers and Olefins America
Marina View Building
2600 South Shore Boulevard
League City, Texas 77573
Phone: +1 281 535 6600
Fax: +1 281 535 6764
Customer Service: +1 800 527 5419
Tech Service: +1 800 338 0489
www.innovene.com

Technical information contained herein is furnished without charge or obligation, and is given and accepted at recipient's sole risk. Because conditions of use may vary and are beyond our control, Innovene makes no representation about, and is not responsible or liable for the accuracy or reliability of data, nor for toxicological effects or Industrial Hygiene requirements associated with particular uses of any product described herein. Nothing contained in this document shall be considered a recommendation for any use that may infringe patent rights, or an endorsement of any particular material, equipment, service, or other item not supplied by Innovene. The "Properties" and "Applications" listed in this document are not specifications. They are provided as information only and in no way modify, amend, enlarge, or create any specification or warranty, and ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED.

