

Alkadyne® HDF193B

Technical Data Sheet High Density Polyethylene

DESCRIPTION

Alkadyne HDF193B is a black high molecular weight bimodal PE100 High Density Polyethylene. It is a high performance resin for use in pressure pipes where service life to 100 years is required. Alkadyne HDF193B offers a balance of excellent processing characteristics along with outstanding toughness, chemical resistance and slow crack growth resistance. Alkadyne HDF193B will also provide excellent resistance to the effects of ultra-violet light exposure in outdoor applications due to well dispersed carbon black.

APPLICATION

Alkadyne HDF193B is suitable for extrusion into a full range of pipes, where High Density, PE 100 type resins are required. In particular, a broad processing window and good sag resistance enables the extrusion of larger bore, thick wall pipe. Alkadyne HDF193B is suitable for use in the transport of a wide range of fluids for industrial, rural and mining applications, including potable water. Suitability for use in any application should be determined by appropriate performance testing.

COMPLIANCE

Alkadyne HDF193B complies to AS/NZS 4131 2010 for PE100 type compounds. It is intended to be used in pipes conforming to AS/NZS 4130.

PRODUCT SAFETY

For product safety information please refer to the Safety Data Sheet at genos.com.

Polymer Properties	Value ¹	Units	Test Method
Melt Index @ 190°C, 5.0 kg	0.3	g/10 min	ASTM D1238
Melt Index @ 190°C, 21.6 kg	8.9	g/10 min	ASTM D1238
Density	0.961	g/cm ³	ASTM D1505/D2839

Pipe Properties	Value ¹	Units	Test Method
Tensile Strength at Break ²	33	MPa	ASTM D638
Tensile Strength at Yield ²	26	МРа	ASTM D638
Elongation at Break ²	760	%	ASTM D638
Elastic Modulus ²	1300	МРа	ASTM D638
Flexural Modulus ³ (1% secant)	1150	МРа	ASTM D790
Durometer Hardness	63	Shore D	ASTM D2240

- 1. Typical values not to be construed as specifications.
- 2. At 50mm/min cross head speed, type 4 dumbbell and 1.9 mm thickness
- At 12.7 mm/min cross head speed
 For up to date information, refer to <u>qenos.com</u>

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