

## 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 [qenos.com](http://qenos.com).

| Polymer Properties          | Value <sup>1</sup> | 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 <sup>3</sup> | ASTM D1505/D2839 |

| Pipe Properties                        | Value <sup>1</sup> | Units | Test Method |
|--|--------------------|-------|-------------|
| Tensile Strength at Break <sup>2</sup> | 33                 | MPa   | ASTM D638   |
| Tensile Strength at Yield <sup>2</sup> | 26                 | MPa   | ASTM D638   |
| Elongation at Break <sup>2</sup>       | >700               | %     | ASTM D638   |
| Elastic Modulus <sup>2</sup>           | 1300               | MPa   | ASTM D638   |

1. Typical values - not to be construed as specifications.
2. At 50mm/min cross head speed, type 4 dumbbell and 1.9 mm thickness

For up to date information, refer to [qenos.com](http://qenos.com)



**Type Tested**  
AS 4131  
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