



Arak Petrochemical Company



Address:

No. 3, Taban St.  
Vali-e-Asr Ave.  
Tehran - IRAN

Tel:

(+98 21)82122700

Fax:

(+98 21)8867  
4126-27

Web-site:

arpc-ir.com

E-mail:

sales@arpc-ir.com

## High Density Polyethylene ARMCRP100B (Pipe Grade)

Typical properties	Test method	Unit	Value
MFI@190°C, 5.0Kg	ASTM 1238	gr/10min	0.22
MFI@190°C, 21.6Kg	ASTM 1238	gr/10min	6.2
FRR(21.6/5.0)	-----	-----	28
Mass Density(23°C)	ISO 1183-1	gr/cm3	0.957
Bulk Density	ASTM D D1829	gr/cm3	0.605
Carbon Black Content	ASTM D 4218	%	2.3
Carbon Black Dispersion	BS-2782	Rating	max 3
Impact Strength(charpy Index@23c°)	ISO 179/1eA	mj/mm <sup>2</sup>	>20
Hydrostatic Strength (80°C/5.5MPa)	ISO 11677	hr	>165
Volatiles	Basel Method	ppm	349
Contamination	Hoechst Method	Rating	2
Vicat Softening Temperature, ( B50)	ASTM D D1525	°C	75
Oxidation Induction Time, (210 °C)	ASTM D 3895	min	>25
DSC Melting Point	-----	°C	130
Shore Hardness, (Shore D, 3 sec)	ASTM D 2240	-----	63

Ø Values shown are typical which are not to be considered as product specifications.

### ✓ Main application & Characteristics:

**ARMCRP100B** are high molecular weight high density polyethylene copolymers, developed as general purpose resin for use in pressure and non-pressure pipes. A minimum service life of 50 years is achievable under appropriate pressure and temperature conditions. **ARMCRP100B** offer excellent chemical resistance and environmental stress crack resistance.

**ARMCRP100B** will provide excellent resistance to effects of ultra violet light exposure in outdoor applications.

**ARMCRP100B** are suitable for use in transport of a wide range of fluids for industrial, rural and mining applications.

Suitability for use in any application should be determined by appropriate performance testing.

\* **ARMCRP100B** are suitable for food contact.



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**ARMCRP100B** are high molecular weight high density polyethylene copolymers, developed as general purpose resin for use in pressure and non-pressure pipes. A minimum service life of 50 years is achievable under appropriate pressure and temperature conditions. **ARMCRP100B** offer excellent chemical resistance and environmental stress crack resistance.

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[MPa] HOOP STRESS

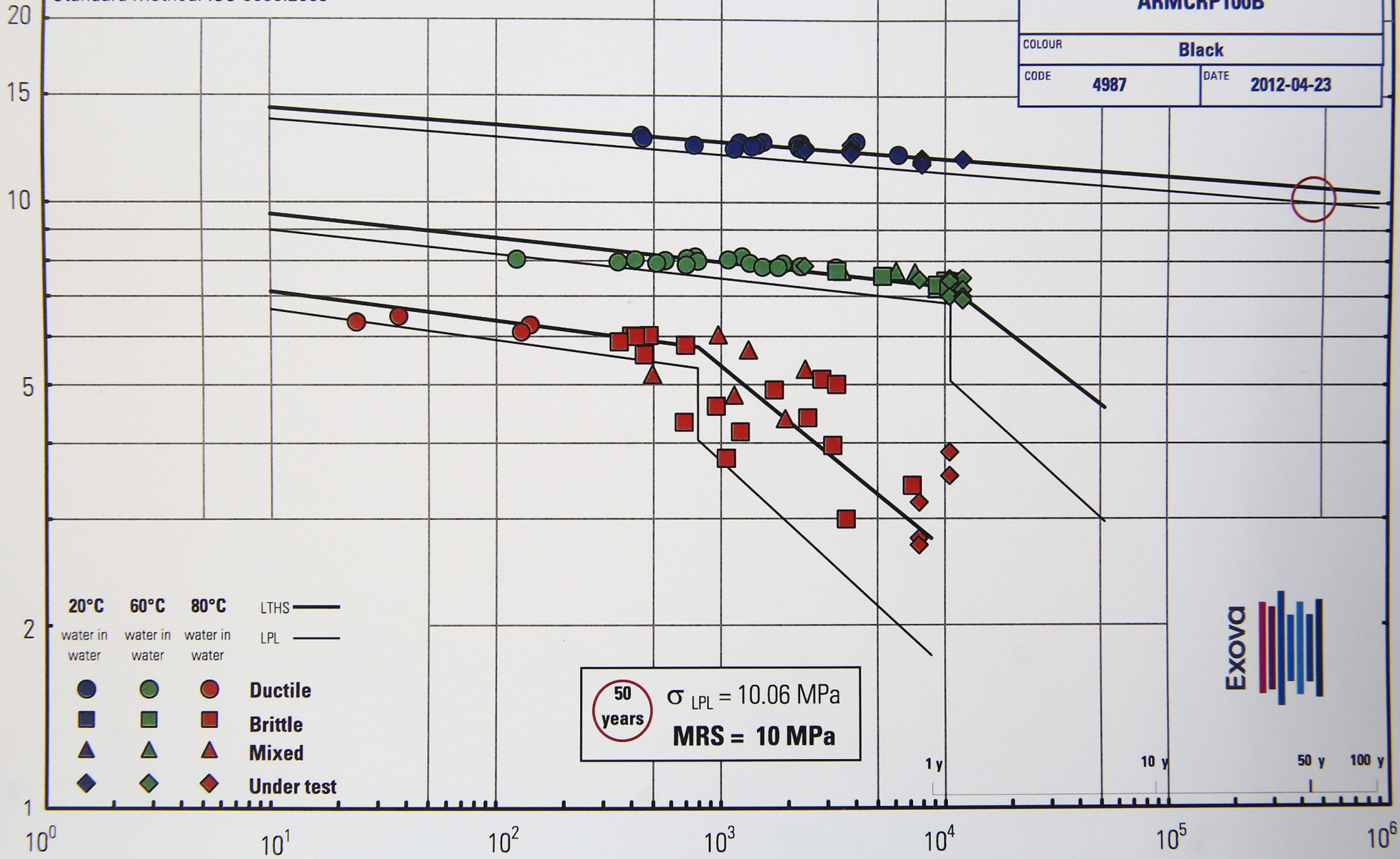
Standard Method: ISO 9080:2003

ARMCRP100B

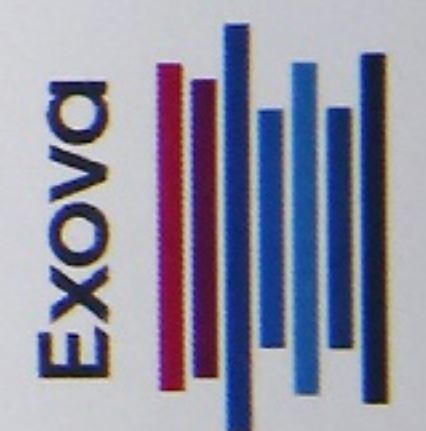
COLOUR **Black**

CODE **4987**

DATE **2012-04-23**



50 years  $\sigma_{LPL} = 10.06 \text{ MPa}$   
**MRS = 10 MPa**



1 y 10 y 50 y 100 y