

Producer: PT Chandra-Asri / Indonesia

**SP 4808**
**Characteristic :**

- Natural pellet
- High tensile properties
- Low sagging grade
- Long term hydrostatic strength
- Excellent stress cracking resistance

**Application:**

- PE-100 certified (MRS=10 MPa)
- $\sigma$ LPL @ 50 years = 10.78 Mpa
- Pressure pipes
- Water distribution pipes (Potable water certified)
- Subduct conduit, Sewerage & Industrial pipes

PROPERTIES	TEST METHOD	UNIT	VALUE
<b>Physical Properties</b>			
Density	ASTM D 1505	g/cm <sup>3</sup>	0.949
MI (190 °C/2.16 kg)	ASTM D 1238	g/10 min.	0.06
MI (190°C/5.0 kg)	ASTM D 1238	g/10 min.	0.25
MI (190 °C/21.6 kg)	ASTM D 1238	g/10 min.	9.0
Brittleness temperature	ASTM D 746	°C	< - 70
ESCR [10% Igepal, F <sub>50</sub> ]	ASTM D 1693	Hrs	> 1,000
Tensile strength @ yield	ASTM D 638	Mpa	30
Tensile strength @ break	ASTM D 638	Mpa	50
Ultimate elongation	ASTM D 638	%	> 700
Tensile impact strength	ASTM D 1822	kJ/m <sup>2</sup>	550
Flexural modulus	ASTM D 790	Mpa	1,3
Oxidative-Induction Time @ 200 °C	ASTM D3895	min	> 80
Viscosity @ 0.1sec <sup>-1</sup> , 190 °C	Torque Rheometer	Pa.s	>100,000
<b>Pipe Properties**</b>			
Hydrostatic Resistance @ 12.4 MPa, 20 °C **	ISO 1167	hrs	> 100
Hydrostatic Resistance @ 5.5 MPa, 80 °C **	ISO 1167	hrs	> 165
Hydrostatic Resistance @ 5.0 MPa, 80 °C **	ISO 1167	Hrs	> 1,000
Rapid Crack Propagation (S4 test @ 0 °C) ***	ISO 13477	Bar	> 12
Slow Crack Growth (notch test @ 80 °C, 9.2 bar) ***	ISO 13479	hrs	> 1,058
Longitudinal reversion ***	ISO 2505-1 & 2	%	0.63

\* - Polyethylene tested per ASTM D 1928

\*\* - E-100 , S-5, SDR-11, PN-16, OD-32mm

\*\*\* - PE-100, S-5, SDR-11, PN-16, OD-110mm

**Conversion:** 1 MPa = 10.2 kg/cm<sup>2</sup> (bar) 1 kJ/m<sup>2</sup> = 0.01 kgf.cm/mm<sup>2</sup>
**Recommended Processing Conditions:**

Melt Temperature ... 190 – 220 °C

This material complies with recommendations &amp; statutory regulations in the USA, Japan and most European countries regarding packaging materials intended to come in contact with foodstuff, since it is used unmodified.