



**ALMNJAL TRADING EST**  
PLASTIC RAW MATERIALS  
مؤسسة المنجل للتجارة

## TECHNICAL DATASHEET

### PE 100 Orange

#### PRODUCT DESCRIPTION

PE 100 Orange is a High Density Polyethylene, orange colored resin. The product is classied as PE 100 and provides excellent environmental stress crack resistance properties (ESCR) combined with very good long term hydrostatic strength. It has very high impact strength resistance and excellent processability.

#### TRPICAL APPLICATION

Drinking Water Pipes.

#### TYPICAL DATA



Physical	Method	Unit	Values
Density	ISO 1183	g/cm <sup>3</sup>	0.951
Melt Flow Rate (190°C/5 kg)	ISO 1133	g/10min	0.23
Melt Flow Rate (190°C/21.6 kg)	ISO 1133	g/10min	6.4
Staudinger Index Jg	ISO 1628	ml/g	380
Vicat Softening Temperature (VST/B/50 k/h (50N))	ISO 306	°C	74

Mechanical	Method	Unit	Values
Tensile Modulus (23°C, v = 1 mm/min, Secant)	ISO 527-1,2	MPa	850
Tensile Stress @ Yield (23°C, v = 50 mm/min)	ISO 527-1,2	MPa	23
Tensile Strain @ Yield (23°C, v = 50 mm/min)	ISO 527-1,-2	%	9
Tensile Creep Modulus 1h [Test stress in MPa]	ISO 899-1	MPa	800 [2.0]
Tensile Creep Modulus 1000 h [Test stress in MPa]	ISO 899-1	MPa	350 [2.0]
Maximum Elongation TD	EN 638	%	> 350
MRS Classification ISO/TR 9080	ISO/TR 9080	MPa	10
Flexural Stress at 3.5% deflection	ISO 178	MPa	20
FNCT (4.0 MPa, 2% Arkopal N 100, 80°C)	ISO 16770	h	> 1000
Flexural Creep Modulus	DIN 19537-2		
(4 Point loading method, 1min-value)		MPa	1100
(4 Point loading method, 24h-value)		MPa	560
(4 Point loading method, 2000h-value)		Mpa	330
Charpy Notched Impact Strength	ISO 179		
(23°C)		kJ/m <sup>2</sup>	29
(-30°C)		kJ/m <sup>2</sup>	15
Shore Hardness (Shore D (3 sec))	ISO 868	-	62
Oxidation Induction Time (OIT) (210°C)	EN 728	min	≥ 30
Odor Threshold	EN 1622/EN 1240	-	< 2.0

**Recommended Temperatures:**

Melt temperatures: 190-220 °C. Injection molding temperatures: 200-280 °C

**Note:**

The typical properties are not to be construed as specifications.