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Full Mechanical Properties Chart — PE80 & PE100

This datasheet summarizes the mechanical, thermal, and physical properties of PE80 and PE100 polyethylene used in water, gas, and industrial piping systems. Designed for engineers, designers, and QC teams to compare performance requirements easily.

Property	PE80	PE100
Density	0.94–0.95 g/cm ³	0.95–0.97 g/cm ³
Tensile Strength	18–22 MPa	25–35 MPa
Elongation at Break	> 400%	> 500%
ESCR	Medium	Very High
OIT	≥ 20 min	≥ 20 min
MFR / MFI	0.3–0.6 g/10 min	0.2–0.4 g/10 min
Hydrostatic Strength	ISO 9080	ISO 9080

References:

ISO 11357: Thermal analysis

ISO 1133: Melt flow testing

ISO 9080: Hydrostatic strength testing