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ISO 4427 Technical Datasheet — Updated Edition

ISO 4427 specifies the requirements for polyethylene (PE) piping systems for water supply, including material properties, performance requirements, dimensional tolerances, pressure capabilities, and fitness-for-purpose testing for PE80 and PE100 grades.

Parameter	Requirement	Notes
Material Grade	PE80 / PE100	Suitable for potable water
Pressure Classes	PN6 – PN25	Depends on SDR
SDR Range	SDR 7.4 – SDR 26	Defines wall thickness
Hydrostatic Strength	ISO 9080	Long-term strength evaluation
OIT (ISO 11357)	≥ 20 min	Thermal stability
MFI (ISO 1133)	0.2 – 0.4 g/10 min	Material consistency
Dimensional Spec	ISO 4427-2	Ovality & tolerance

References:

ISO 4427-1: General

ISO 4427-2: Pipes

ISO 4427-3: Fittings

ISO 9080: Hydrostatic Strength Analysis