EN 10288
EXTERNAL TWO-LAYER POLYETHYLENE COATING

Coating thickness:

Composition of the coating	Tube nominal outside diameter, mm	Coating thickness class, mm, at least		
		1	2	3
Two-layer polyethylene coating	Up to 114.3 inclusive	1.5	1.8	2.5
	From 114 to 273 inclusive	1.8	2.0	2.7
	From 273 to 508 inclusive	2.0	2.2	2.9
	From 508 to 762 inclusive	2.2	2.5	3.2

Coating type:

Type 1 – at service temperatures up to plus 60 °C;
Type 2 – at service temperatures up to plus 30 °C;

Acceptance testing of pipes with coating:

- external appearance of coating check;
- length measuring of bare ends;
- taper angle measuring coating to the pipe's body;
- dielectric coating integrity testing;
- thickness of coating testing;
- strength test of coating with the impact up to (20±5) °C;
- peel force control at temperatures of plus (23±2) °C and plus (60±2) °C.

EN ISO 21809-2011
EXTERNAL THREE-LAYER POLYETHYLENE COATING

Coating thickness:

Weight of 1 meter of pipe Pm/m (kg/m)	Total coating thickness, at least, mm					
	Class A1	Class A2	Class A3	Class B1	Class B2	Class B3
Pm ≤ 15	1.8	2.1	2.6	1.3	1.8	2.3
15< Pm ≤ 50	2.0	2.4	3.0	1.5	2.1	2.7
50< Pm ≤ 130	2.4	2.8	3.5	1.8	2.5	3.1

Coating type:

Coating classes:
Class A – used for application at pipeline service temperatures from minus 20 °C to plus 60 °C.
Class B – used for application at pipeline service temperatures from minus 40 °C to plus 80 °C.

Acceptance testing of pipes with coating:
- external appearance of coating check;
- length measuring of bare ends;
- taper angle measuring coating to the pipe's body;
- dielectric coating integrity testing;
- thickness of coating testing;
- strength test of coating with the impact up to (23±3) °C;

Peel force control:
Class A – at temperatures of plus 23 °C and plus 60 °C;
Class B – at temperatures of plus 23 °C and plus 80 °C;
- cathodic disbondment test;
- hot water coating test.

POLYETHYLENE COATED PIPES

DIN 30670
POLYETHYLENE COATING ON STEEL PIPES AND FITTINGS EXTERNAL

Coating execution:

N – normal execution (at temperatures of up to 50 °C);
S – special execution (at temperatures of up to 70 °C).

Coating thickness:

Pipe nominal outside diameter, mm	Coating thickness, at least, mm	
	Normal thickness (n)	Reinforced thickness (v)
From 100 to 250 inclusive	2.0	2.7
From 250 to 500 inclusive	2.2	2.9
From 500 to 530 inclusive	2.5	3.2

Pipe length: 10-13 m

Coating requirements:

Coating characteristics	Norm	
	Execution type	
	Normal	Special
Dielectric continuity, kV, no less than	Lack of electric current in 25 kV	
Impact strength of (23±2) °C, J but no less, for the tubes in diameter: - 200 mm and over - up to 200 mm	 5 4.25	 5 4.25
Adherence of coating to steel l/cm, no less than temperature: - (20±5) °C - (50±5) °C	 35 15	 35 25