

EUROJACKET



EN

PE CASING FOR DISTRICT HEATING PIPE SYSTEMS

Casing pipe made in high density polyethylene intended to be used as external layer of preinsulated pipes for district heating or cooling piping systems, compliant with the requirements of the standard EN 253.



DESCRIPTION

The main function of EUROJACKET casing pipes is to protect the insulating layer and the service pipe from moisture/water and mechanical damage.

The EUROJACKET casings are fully suitable for the typical district heating applications, as described by the above referenced standards, and also more generally for all those applications in which a service pipe, not necessarily a steel pipe, is provided with a thermal insulating layer. Another typical example is cooling systems.

the PE wettability, which is intrinsically low, is raised by a specifically designed process (corona treatment) to grant adhesion of the insulant to the casing, which is required by the standard EN 253.



MATERIAL

- High density polyethylene (HDPE), class PE80 or above.
- Carbon black content from 2% to 3% in weight (black color, suitable for open air installations)
- $0,2 \text{ g/10min} \leq \text{melt flow index (MFI - 5 kg, 190 °C)} \leq 1,0 \text{ g/10min}$
- Oxidation induction time (OIT - 210 °C) $\geq 20\text{min}$

Eurojacket (EN 253)	Unit	Value
Melt flow index (5 Kg 190°C)	g/10 min	0,2 - 1,0
Density	g/cm ³	0,960
Yield strength ¹	MPa	25
Elongation at break	%	≥ 350
OIT (210 °C)	min	≥ 20
Carbon black	%	2,0 - 3,0
Longitudinal reversion	%	≤ 3
Internal surface wettability	dyne/cm	≥ 42
Stress cracking resistance - FNCT (full-notch creep test)	h	≥ 300

1. Typical value not subject to requirement

REFERENCES

UNI EN 253

District heating pipes - Bonded single pipe systems for directly buried hot water networks - Factory made pipe assembly of steel service pipe, polyurethane thermal insulation and a casing of polyethylene.

Note: bonded pipes for district heating, as described by EN253, are part of a system further described by the following standards:

EN 448, for fittings,

EN 488, for valves,

EN 489, for joints (thermo shrinkable muffs EuroJ).

The designer of a piping system shall consider and carefully evaluate the implications of the parameters of each specific project with technical or law regulations.



DIMENSIONAL DATA

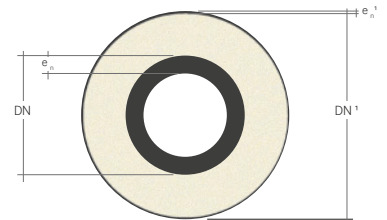
CASING PIPE

DN [mm]	EUROJACKET	
	DN ¹ [mm]	e _n ¹ [mm]
32	90	3,0
40	110	3,0
50	110	3,0
63	125	3,0
75	140	3,0
90	160	3,0
110	200	3,2
125	225	3,4
140	225	3,4
160	250	3,6
180	280	3,9
200	315	4,1
225	315	4,4
250	400	4,8
280	400	4,8
315	450	5,2
355	500	5,6
400	560	6,0
450	630	6,6
500	710	7,9

Casing dimensions of the pipe assembly		
Minimum outside diameter [mm]	Maximum outside diameter [mm]	Minimum wall diameter [mm]
90	95	3,0
110	116	3,0
110	116	3,0
125	132	3,0
140	147	3,0
160	168	3,0
200	206	3,2
225	232	3,4
225	232	3,4
250	258	3,6
280	289	3,9
315	325	4,1
315	325	4,4
400	412	4,8
400	412	4,8
450	464	5,2
500	515	5,6
560	577	6,0
630	649	7,6
710	732	7,9

Other sizes on request (up to DN 800 with Eurojacket DN¹ 1000)

- DN Nominal diameter of service pipe
- e_n Nominal thickness of service pipe
- DN¹ Nominal diameter of EUROJACKET casing
- e_n¹ Nominal thickness of EUROJACKET casing



For the range of certified pipes, check the website www.eurotubi.com and the websites of the certification bodies.