

# BRUGG

## Pipes

### SPIRAMANT

Pre-insulated pipe systems for industrial applications



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## PRE-INSULATED PIPE SYSTEMS FOR INDUSTRIAL APPLICATIONS

Application	Standard parameters	Example materials for carrier pipes
Cooling with cold water	-5 ... 16°C / PN25 DN20...DN600	P235GH (EN10216 e EN10217) HDPE - PE100 (DIN 8074)
Cooling with refrigerant	-30 ... 90°C / PN25 DN20...DN150	P235GH; P215NL (EN10216) Cu-DHP (EN 12735-1)
Geothermal energy	30 ... 110°C / PN25 DN20...DN600	GFK (DIN 16867 / DIN 16 965) 1.4401, 1.4404 ... 1.4571 (EN10217-7)
Process technology	-30 ... 160°C / PN25 DN15...DN600	1.4401, 1.4404 ... 1.4571 (EN10217-7)
Steam & Condensate	30°C ... 160°C / PN6 DN20...DN600	P235GH (EN10216 / EN10217)
Food	-30 ... 160°C / PN25 DN15...DN600	1.4401, 1.4404 ... 1.4571 (EN10217-7)
Drinking water	5 ... 20°C / PN25 DN20...DN600	HDPE - PE100 (DIN 8074) Sleeve pipes (DIN EN 545)
Waste Water	5 ... 20°C / PN25 DN20...DN600	Sleeve pipes (DIN EN 598)
Hot water	20 ... 160°C / PN25 DN15...DN600	P235GH; P215NL (EN10216) Cu-DHP (EN 12735-1)
Chemical industry	-30 ... 160°C / PN25 DN15...DN600	Geberit Mapress HDPE - PE100 (DIN 8074)
Compressed air supply	5 ... 40°C / PN25 Da DN15 a DN150	1.4401, 1.4404 ... 1.4571 (EN10217-7) Threaded pipe (DIN2440)
Oils & Gases	5 ... 120°C / PN25 Da DN15 a DN600	L235GA; L290GA (EN10208)



### Casing pipes

Various casings are available as external protection for insulation. Casings can be selected based purely on technical requirements (e.g. corrosion protection) or for aesthetic reasons.

- stainless steel
- Galvanised sheet steel
- Aluminium as AlMg3
- HDPE PE100



### Insulation

For heat or cold insulation the annular gap is insulated with polyurethane foam. Depending on what the pipes are being used for, CO<sub>2</sub> or pentane is used as a propellant.

- Compressive strength >150kPa at 10% compression
- Density >60kg/m<sup>3</sup>
- 2 K PUR foam
- Water absorption <10%
- Closed cells