

## Tender Specification / Specimen Texts

### SIMONA<sup>®</sup> PE 100 FM-Line pipes for underground fire-fighting pipelines

#### Overview of text modules with user information

#### Underground fire-fighting pipelines:

- PE 100 FM-Line pipe  
Pipe for newly laid pipelines in bed of sand, twice crushed and screened chippings, maximum grain size 11 mm, or gravel 16/32 mm.  
Joining method: heated-tool butt welding or electrofusion welding.

#### References to standards included:

FM-Approval 1613	"Polyethylene (PE) Pipe and Fittings for Underground Fire Protection Service"
DIN 8074	"Polyethylene (PE) pipes – PE 80, PE 100 – Dimensions"
DIN 8075	"Polyethylene (PE) pipes – PE 80, PE 100 – General quality requirements"
DIN EN 12201-1	"Plastic piping systems for water supply, and for drainage and sewerage under pressure – General"
DIN EN 12201-2	"Plastic piping systems for water supply, and for drainage and sewerage under pressure – Pipes"
DIN EN ISO 15494	"Plastic piping systems for industrial applications – Polybutylene (PB), polyethylene (PE) and polypropylene (PP) – Requirements for piping parts and the piping system – Metric series"
DVS 2207-1	"Welding of thermoplastics – Heated-tool welding of pipes, pipeline components and sheets made of PE"
DIN EN ISO 9001	"Quality management systems – Requirements"
DIN EN 10204	"Types of inspection documents"

**Generally applicable preliminary text concerning storage and processing:**

With regard to storage, care must be taken to prevent permanent deformations and damage. Stacks of pipes should not be higher than 1.5 m and must be secured at the side. Sudden stresses must be avoided. Any pipes or fittings damaged in transit or in storage must be segregated to prevent further use. This also applies to pipes with scores caused in transit having a depth of more than 10% of the wall thickness. Watertight, integral welding shall be based on the general welding guidelines of DVS 2207 Part 1 "Welding of thermoplastics; Heated-tool welding of pipes, pipeline components and sheets made of PE-HD". Process data for the welding operations shall be recorded and handed over to the client after completion of the welding work. Pressure tests shall be performed in agreement with the client in accordance with the codes of practice of DVS, DVGW or the corresponding national or international codes of practice.

Only pipeline construction contractors who have professionally trained staff in compliance with Section 19 I of the German Water Resources Act 'WHG' may be commissioned to perform the laying and assembly work. Connection of pipes and pipeline parts by welding shall be performed by plastic welders who have passed a welders' examination conforming to DVS 2212 Part 1.

**Item texts concerning delivery and laying**

**Item PE 100 pressure pipe for underground fire-fighting pipelines**

Deliver and lay seamless, extruded, black PE 100 pressure pipe as per DIN 8074, DIN 8075, DIN EN 12201 and DIN EN ISO 15494 with FM certification, approval up to 15 bar (218 psi) and special FM mark.

External monitoring by TÜV Süddeutschland e.V.

Quality assurance in compliance with DIN EN ISO 9001.

Connection of pipes by heated-tool butt welding or electrofusion welding in compliance with the requirements of DVS 2207.

Storage and transport in compliance with the requirements of the German Plastic Pipes Association ([www.wipo.krv.de](http://www.wipo.krv.de)).

Laying in compliance with DVGW W 400-2 and manufacturer's specifications.

Proof of delivery in compliance with DIN EN 10204 with acceptance test certificate 3.1

Material:	PE 100
Colour:	Black
SDR class:	SDR 11
Length:	<input type="text"/> m (standard length 6.00 m or 12.00 m)
Outside diameter:	<input type="text"/> 90 – 630 mm
Wall thickness:	<input type="text"/> mm
Quantity:	<input type="text"/> pcs.
Unit price: <input type="text"/> €	Total price: <input type="text"/> €
Make:	SIMONA AG, Kirn, Germany or equivalent