

XP9000 / XP9020 PE-RT I/II

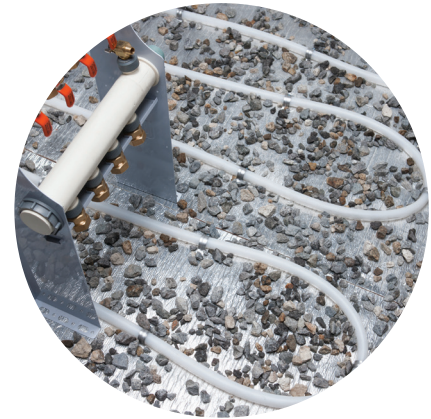


DAELIM mPE KEY VALUE

- 01 Improves productivity.**
PE-RT enables higher throughput compared with XLPE, and consequently more attractive in terms of production efficiency.

- 02 Provides excellent mechanical properties.**
XP9000 provides superior mechanical properties compared with other PE-RT.

- 03 Enables outstanding appearance of pipe**
Excellent gloss and fine surface ensures outstanding pipe appearance.



MAIN PROPERTIES

DAELIM XP9000 / XP9020 ensures higher production efficiency.

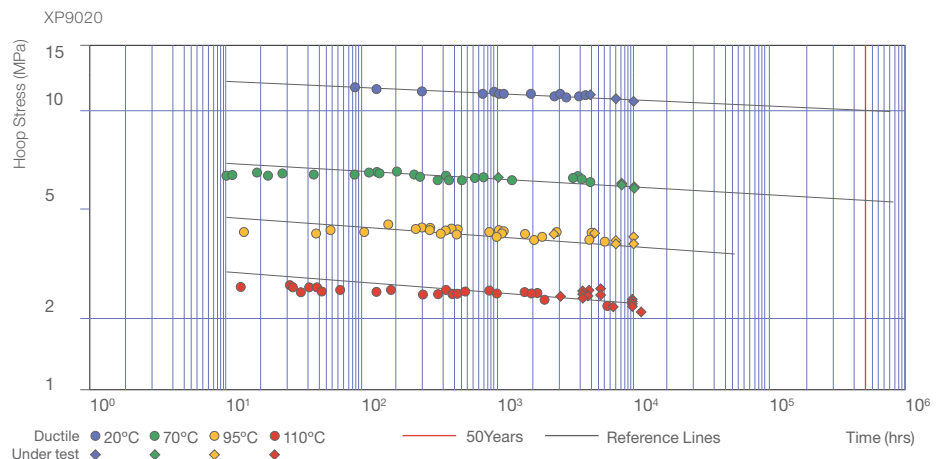
With higher pipe extrusion throughput compared with XLPE, PE-RT pipe is also easy to install either with tube fittings/ socket or heat fusion welding.

Classification	PE-RT I / II	XLPE	PPR	PB-1
Raw Material	non cross-linked polyethylene	cross-linked polyethylene	polypropylene random copolymer	polybutene-1
Installation Process	excellent	good	normal	excellent
Assembly Operation*	1	2	3	1
Recycle	possible	impossible	possible	possible
Production Efficiency	very good	very bad	very good	bad
Main Application	UFH hot/water supply pipe	UFH	hot/water supply pipe	UFH hot/water supply pipe

* Assembly Method : 1. tube fittings/socket or heat fusion welding 2. tube fittings/socket 3. heat fusion welding

Approved PE-RT by official certification organization, Exova.

Officially approved its qualification for PE-RT Type I and Type II class material EXOVA(formerly Bodycote) approved both DAELIM XP9000 and XP9020 in terms of physical performance committing to 50 years of lifetime.
(In comparison with XP9000, XP9020 provides more improved hydrostatic strength at elevated temperatures.)



Provides differential benefits for various customers in supply chain.

Case	Before	After	Customer Benefits
A	XLPE	XP9000	· production throughput ↑ (production speed ↑ by 20 times)
B	PB-1	XP9000	· cost saving (up to 50%)
C	PP-R	XP9020	· production throughput ↑ (up to 10%)

XP9000 / XP9020 PE-RT I/II

CHARACTERISTICS

- Excellent long-term hydrostatic strength
- Outstanding pipe appearance
- Superior low-temp impact strength
- Excellent high-speed processability

APPLICATIONS

- UFH (under-floor heating pipe)
- Hot & cold water supply pipe
- AI composite pipe

PROCESSING RECOMMENDATION

- Processing temperature 180~220°C

REGULATIONS

- Meets FDA 21 CFR 177. 1520
- Meets ISO 24033 & ISO 22391

PHYSICAL PROPERTIES

Resin Properties	Unit	Test Method	XP9000 (Type I)	XP9020 (Type II)
Density	g/cm ³	ASTM D1505	0.935	0.941
Melt Index (190°C, 2.16kg)	g/10min	ASTM D1238	0.60	0.14
Vicat Softening Point	°C	ASTM D1525	120	122
Melting Temperature	°C	ASTM D3418	125	126
Additives	-	-	AO, PPA	AO, PPA

Sheet Properties	Unit	Test Method	XP9000 (Type I)	XP9020 (Type II)
Tensile Strength at Break (MD)	kg/cm ²	ASTM D638	400	430
Elongation at Break (MD)	%	ASTM D638	850	850
Flexural Modulus	kg/cm ²	ASTM D790	5,600	6,200
Izod Impact Strength (Notch, -30°C)	kg-cm/cm	ASTM D256	10	12
ESCR (Condition B, F50)	hr	ASTM D1693	>10,000	>10,000
Gloss (45°)	-	ASTM D2457	75	70

1. Above properties were determined on compressed sheet prepared in accordance with ASTM D4703.
2. Additives : AO (antioxidant), PPA (polymer processing aid)
3. These are typical properties only and are not to be construed as specifications.

NOTICE: Prior to use for any commercial purpose, the customer is fully responsible for determining its suitability for intended application and for ensuring its disposal practices are in compliance with applicable laws and other governmental enactments. DAELIM assumes no obligation or liability in this regard. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.