

Polidan®



SOLVAY

asking more from chemistry®



Polidan® PEX

for Pipes and Plumbing Components

**SPECIALTY
POLYMERS**

Outperforming Thermoplastic Polyolefins

Polidan® PEX is a family of silane cross-linkable polyethylene compounds. This means that permanent connections, known as cross-links, are chemically formed between molecular chains, thus creating a three-dimensional structure. As a result, Polidan® PEX exhibits critical advantages over polyolefins such as:

- Higher heat resistance
- Stronger resistance to oxidative aging
- Greater strength at elevated temperatures
- Better chemical and chlorine resistance
- Improved low-temperature impact strength
- Superior resistance to crack propagation
- Enhanced abrasion resistance

Moreover special grades have been designed to substitute EPDM, polyolefins, silicone or PVC in pressure-braided flexible hoses or low pressure shower hoses.

The Metal-to-Plastic Conversion

Monolayer and multilayer PEX pipes made from Polidan® compounds are flexible and have excellent strength, from below freezing point up to 95 °C. PEX piping systems are more sound-proof than rigid ones and require fewer fittings, making them easier and less costly to install.

Over the past 20 years, this unique combination of properties has allowed Polidan® PEX to successfully replace metal in piping materials used in pressurized hot and cold water plumbing systems, service lines and hydronic systems for radiant heating.

PEX Piping System ISO 15875 Standard Requirements for Hot and Cold Water Installation

Temperature [°C]	Conditioning Media	Hydrostatic Hoop Stress, [MPa]	Time of Stress, [hours]	Polidan® PEX Pipe Performance Hydrostatic Hoop Stress, [MPa]	Time of Stress, [hours]
20	Air or water	12	1	13	> 1300
95	Air or water	4.8	1	5	> 19,900
95	Air or water	4.4	1,000	4.6	> 40,000
110	Air	2.5	8,760	2.8	> 16,000

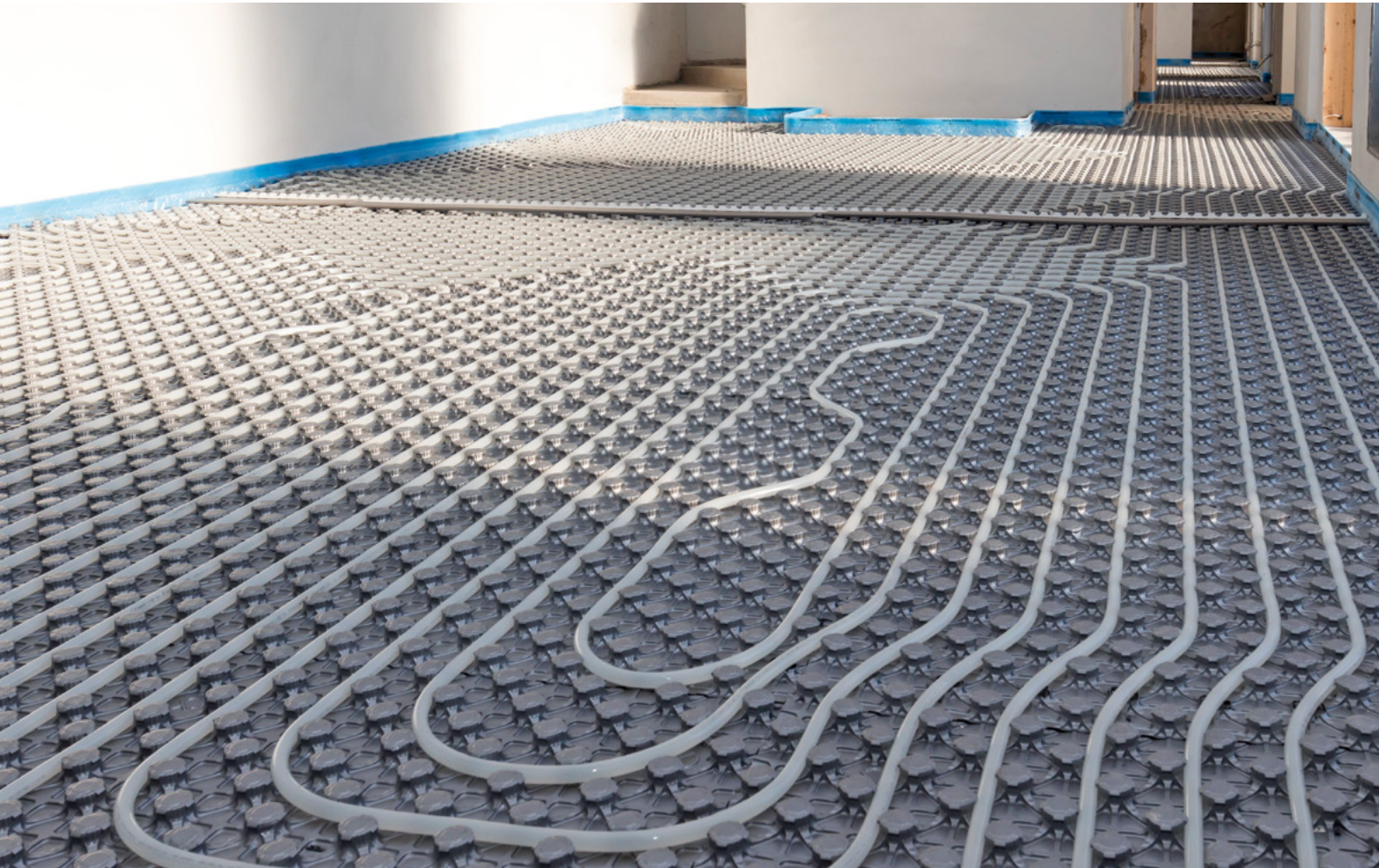
Certified for Contact with Drinking Water

Polidan® PEX compounds are globally-approved for hot and cold, potable water use and are certified by KTW, NSF and WRc. Solvay voluntarily certifies its specialty polymers on a global basis in order to help OEMs expedite the approval process required for applications involving contact with drinking water. The wide range of products and grades that meet these requirements give designers maximum freedom in selecting the best material for a variety of applications.

Polidan® PEX: Plumbing Market Applications

	High Flexible Grades			Standard Sanitary Grades					Injection Grades
	PNT 0856/35	PNT 0553/23	PNT 0555/06	T/A HF	T/A LX	T/A	T/A SP	T/A LV	Si/20
Fitting bodies									●
Fitting components	○	○							○
Manifolds									○
Faucet cartridges									○
Sanitary pipes				●	●	●	●	●	
Underfloor heating pipes			●	●	●				
Industrial pipes				●		●			
Flexible hoses	●	●							
Sealing gaskets	○	○							
Boiler tanks & components									○

- Commercial application
- Under development & potential





Specialty Polymers

Worldwide Headquarters

SpecialtyPolymers.EMEA@solvay.com

Viale Lombardia, 20
20021 Bollate (MI), Italy

Americas Headquarters

SpecialtyPolymers.Americas@solvay.com

4500 McGinnis Ferry Road
Alpharetta, GA 30005, USA

Asia Headquarters

SpecialtyPolymers.Asia@solvay.com

No.3966 Jindu Road
Shanghai, China 201108

www.solvay.com

Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

Neither Solvay Specialty Polymers nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Solvay's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Solvay's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right.

All trademarks and registered trademarks are property of the companies that comprise the Solvay Group or their respective owners.
© 2017, Solvay Specialty Polymers. All rights reserved. D 03/2017 | Version 1.0 Brochure design by ahlersheinel.com