



**SOLVAY**  
asking more from chemistry®

# Specialty Polymers Certified for Contact with Drinking Water

For more than 20 years, Solvay has been helping water-handling device manufacturers discover the cost and performance advantages of using high-performance plastics in pressurized hot water systems. They can cost-effectively outperform brass and copper and have a proven track record of reliable performance.

## Performance You Can Trust

Solvay voluntarily certifies its specialty polymers on a global basis to help OEMs expedite the approval process required for applications involving contact with drinking water (see Table 1). 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, including:

- Pipes
- Flexible pipes
- Fittings
- Cartridges
- Valves
- Faucet components
- Boiler components
- Pump components

## Polidan® PEX

This family of silane cross-linkable polyethylene compounds is used in monolayer and multilayer piping systems. These materials offer outstanding flexibility and strength from below freezing up to 95 °C (203 °F). They are highly resistant to creep and chemical attack as well as crack formation and propagation. Specialty grades for thermal welding, in-situ cross-linking and industrial applications are available.

## Solef® PVDF

Polyvinylidene fluoride (PVDF) provides outstanding resistance to chemicals, UV light, and fatigue, along with exceptional barrier properties, scratch resistance and ease of processing. High long-term hydrostatic strength (LTHS) values make these materials well-suited for fittings used in multilayer piping systems that operate under high pressure (up to 10 bar) and temperatures up to 95 °C (203 °F).

## Radel® PPSU

Polyphenylsulfone (PPSU) offers higher fatigue resistance, better chemical resistance and significantly higher impact strength than Udel® PSU. It has the highest LTHS of any sulfone polymer, making it well-suited for fittings used in multilayer piping systems that operate under high pressure (up to 10 bar) and temperatures up to 95 °C (203 °F).

## Acudel® modified PPSU

This family of proprietary PPSU-based formulations fills the cost-performance gap between Radel® PPSU and Udel® PSU. These materials provide toughness and chemical resistance along with hydrolytic and dimensional stability for plumbing systems with less demanding pressure and temperature requirements.

## Udel® PSU

Polysulfone (PSU) exhibits low creep, good toughness and excellent dimensional stability in hot water and steam. These attributes combine with proven resistance to oxidative aging to make it a cost-effective material for applications requiring continuous exposure to hot chlorinated water.

## Amodel® PPA

Polyphthalamide (PPA) is a high-performance polyamide that's suitable for applications with intermittent exposure to hot potable water. It outperforms conventional polyamides, delivering higher operating temperatures, lower moisture absorption, better dimensional stability, and superior resistance to creep and fatigue.

**Table 1:** Specialty polymers certified for contact with drinking water<sup>(1)</sup>

Polymer	Color	NSF14 <sup>(2)</sup>	NSF61 <sup>(2)</sup>	W270	KTW	ACS	WRAS	DM174
<b>Acudel® mod. PPSU</b>								
22000 BK937	Black	✓	✓				✓	
22000 NT15	Natural	✓	✓				✓	
<b>Amodel® PPA</b>								
A-1145 BK937 DW	Black		✓	✓	✓	✓	✓	
A-1133 BK937 DW	Black		✓		✓	✓	✓	
<b>Polidan® PEX</b>								
S/I 20	Natural			✓	✓		✓	
T/A	Natural	✓	✓	✓	✓			✓
T/A-HF	Natural	✓	✓	✓	✓			✓
T/A-LX	Natural			✓	✓			✓
T/A-SP	Natural			✓	✓			✓
TUX100	Natural			✓	✓			
<b>Radel® PPSU</b>								
R-5000 NT	Transparent	✓	✓	✓	✓	✓	✓	✓
R-5100 BK937	Black	✓	✓	✓	✓	✓	✓	✓
R-5100 BU1197	Blue	✓	✓	✓	✓	✓	✓	✓
R-5100 GY1037	Grey	✓	✓	✓	✓	✓	✓	✓
R-5100 NT15	Beige	✓	✓	✓	✓	✓	✓	✓
R-5500 NT	Transparent	✓	✓	✓	✓	✓		✓
<b>Solef® PVDF</b>								
1010/0001	Natural		✓	✓	✓	✓	✓	
1010/0901	Black		✓	✓	✓	✓	✓	
<b>Udel® PSU</b>								
GF-110 NT	Natural		✓	✓			✓	
GF-120 BK937	Black		✓	✓	✓	✓	✓	
GF-120 NT	Natural	✓	✓	✓	✓	✓	✓	
GF-130 BK937	Black		✓		✓			
GF-130 NT	Natural		✓	✓	✓		✓	
P-1700 BK937	Black		✓	✓	✓		✓	
P-1700 GN535	Green			✓	✓		✓	
P-1700 GY8057	Grey			✓	✓		✓	
P-1700 NT11	Transparent		✓	✓	✓	✓	✓	
P-1700 WH7407	White			✓	✓	✓	✓	
P-1710 NT15	Natural	✓	✓					
P-1700 RD7505	Red	✓	✓					

<sup>(1)</sup> Additional products and colors certified for drinking water contact are available

<sup>(2)</sup> Products with both NSF14 and NSF61 approvals also have NSFpw approval

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