ACETAL POLYMER, 20 PERCENT PTFE, -20 TO 250 DEG F

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Summary: This material is a thermoplastic acetal polymer with 20% PTFE-filled. Examples are Dupont Delrin® AF Blend or 570 acetal homopolymer.

Table of Contents

Section	Title	Page
1.0	**SERVICE COMPATIBILITY**	**3**
1.1	API 6A, Temperature, and Pressure Compatibiliy	3
1.1.1	API and Temperature Limits:	3
1.1.2	Pressure Limits:	3
1.2	Chemical Compatibility	3
2.0	**MATERIAL PROPERTIES**	**4**

MATERIAL

This material is a thermoplastic acetal polymer (POM –Polyoxymethylene) with 20% PTFE filler. Examples are Dupont Delrin® AF Blend or 570 acetal homopolymer.

1.0 SERVICE COMPATIBILITY

1.1 API 6A, Temperature, and Pressure Compatibiliy

1.1.1 API and Temperature Limits:

API 6A, Appendix F, Table F.2, Test Fluid Class	CC
API 6A, Table 3, Material Class	AA to CC
API 6A, Table 2, Temperature Class	P to T
Temperature Rating	-20 to 180^{o}F

1.1.2 Pressure Limits:

Pressure limitations	15,000psi

1.2 Chemical Compatibility

Chemical	Rating
H_2O, Water	A
Hydrocarbons	A
CH_4, Methane	A
N_2, Nitrogen Gas	A
CO_2, Carbon Dioxide	A
H_2S, Hydrogen Sulfide	C
Amines	D
Chlorides	B

HCl, Hydrochloric Acid	C
H_2SO_4, Sulfuric Acid	D
H_2CO_3, Carbonic Acid	B
O_2, Oxygen	D
Steam	D

A – Excellent B- Good C – Poor D-Do not use

2.0 MATERIAL PROPERTIES

Hardness, Rockwell R ASTM D785	118 ± 5 pts (reference)
Tensile Strength, min ASTM D638	8,000psi
Flexural Modulus ASTM D790	440,000-725,000psi (reference)
Tensile Elongation, min ASTM D638	15%
Impact Strength (Izod notched) min ASTM D256 Type A (73°F/23°C)	0.7 ft-lb/in
Specific Gravity ASTM D792 Method A (73°F/23°C)	1.54 ± .05
Compression Strength, min ASTM D695 1% Deformation 10% Deformation	(reference) 4,500psi or 15,000psi
Heat Deflection Temp, min at 264 psi ASTM D256	244°F (118°C) (reference)

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