Avalon 56

Polytetrafluoroethylene

Greene, Tweed & Co.

Message:

PTFE is preferred for use in many pharmaceutical-sealing applications. Its chemical inertness and ultra-low level extractables provide pharmaceutical process and validation engineers with a safe material to use in almost any application. PTFE is visco-elastic, providing a functional seal when other fluorinated plastics such as PFA or FEP cannot. However, because virgin PTFE will creep under load its ability to provide a reliable seal during temperature cycling is limited.
Ferrule gaskets made from Avalon® 56 provide a level of performance superior to other PTFE materials used in the pharmaceutical and hygienic fluid handling industries. Greene, Tweed's Avalon 56 uses the latest generation modified PTFE. Modified PTFE contains a small amount of a perfluoroether to improve creep resistance, compressive strength and permeation resistance. Modified PTFE is not only the material of choice for PTFE-faced diaphragm materials, but it is also FDA compliant.
While other gasket manufacturers fabricate gaskets by directly molding the finished part, Greene Tweed machines Avalon 56 sanitary gaskets and custom shapes from isostatic-molded billets to provide optimal physical properties and tighter tolerances, easing the installation process.
Avalon 56 virgin PTFE seals deliver improved sealing performance over standard PTFE.
Avalon 56 is available in all sanitary gasket sizes, as well as custom shapes.

General Information			
Features	Good Chemical Resistance		
	Good Compressive Strength		
	Good Creep Resistance		
	High Elasticity		
	Low Extractables		
Uses	Gaskets		
	Pharmaceuticals		
	Seals		
Agency Ratings	FDA Unspecified Rating		
	USP Class VI		
Appearance	White		
Forms	Pellets		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	2.17	g/cm³	ASTM D1457
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	34.5	MPa	ASTM D638
Tensile Elongation (Yield)	450	%	ASTM D1457
Shear Strength			ASTM D732
27°C	16.5	MPa	
38°C	15.2	MPa	
66°C	12.8	MPa	
93°C	11.7	MPa	
149°C	10.3	MPa	

204°C	9.31	MPa	
Coefficient of Friction [1]			
vs. Itself - Dynamic	0.080		
vs. Itself - Static	0.050		
Deformation Under Load (22°C, 14 MPa)	3.20	%	ASTM D621
Wear Factor	5000	10^-8 mm^3/N·m	ASTM G77

NOTE			
1.	33.3 psi		

Recommended distributors for this material

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