

DMR Material PTVFQ-WD58

FDA Compliant Virgin PTFE Fluoropolymer Material



MATERIAL DATA SHEET (Version 5.0 – 09.2020)



High Temperature



Chemical resistance



FDA 21 CFR 177.1550
Compliant



EC 1935/2004
EC 10/2011
Compliant

Description

DMR Seals material PTVFQ-WD58 is a virgin PTFE compound (commonly referred to as Teflon™) that has been successfully migration tested in accordance with FDA 21 CFR 177.1550 legislation and is suitable to be used in contact with foodstuffs.

This material has excellent chemical and temperature resistance along with low friction properties making it an ideal choice for a wide range of sealing applications within the food and beverage industry.

Physical Properties

Property	Test method	Unit	Typical value
Colour			White
Density	ASTM D792	g/cm ³	2.14-2.18
Hardness	ASTM D2240	Shore D	58
Tensile strength	ISO 527	N/mm ²	25
Elongation at break	ISO 527	%	250
Deformation under load *	ASTM D621	%	13
Permanent deformation**	ASTM D621	%	7
Coefficient of linear thermal expansion ***	ASTM D696	10 ⁵ (mm/mm)/ °C	12-13
Minimum service temperature ****		°C	-200
Maximum service temperature ****		°C	+260

* (24 Hours @ 23°C – 13.7N/mm²)

** (24 Hr relaxation @ 23°C)

*** (25 to 100°C)

**** (Testing in application is mandatory)

Teflon™ is a registered trademark of the Chemours company

FDA-CFR 21 -177.1550 extraction on PTVFQ-WD58 material samples (mg/in ²)				
FDA test method	Reflux test conditions	Mean result	Limit*	Conclusion
CFR 177.1550	Deionised water, 2 hours	0.09	0.2	PASS
CFR 177.1550	N-heptane, 2 hours	0.08	0.2	PASS
CFR 177.1550	50% Ethanol, 2 hours	0.07	0.2	PASS
CFR 177.1550	Ethyl Acetate, 2 hours	0.08	0.2	PASS

* Maximum acceptable global migration according to FDA CFR 21 Parts 170-199 Item 177.1550

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