JIORINGS
La forma más rápida de encontrar una junta

Polígono Erletxe, Plataforma H, Edificio 2, Nº5, 48960 Galdakano (Bizkaia)
T 94 401 44 20 F 94 600 90 93 E info@jiorings.com W www.jiorings.com

FICHA TÉCNICA
TECHNICAL DATA SHEET
FICHE MATIERE[1]

Código mezcla *Compound pn Réf. Mélange*	**Mezcla** *Compound Mélange*	**Material** *Material Matière*	**Dureza** *Hardness Dureté*	**Color** *Colour Couleur*
0926	**S318T160-122333**	**VMQ + FEP**		**NEGRO** *BLACK NOIR*

Temperaturas de trabajo *Working conditions Tenue en température*	Min.	Max. (en continuo / *long term / en continu*)	Max. (en punta / *peak / en pointe*)
	-60 °C	**+205 °C**	**+260 °C**

REACH	**ROHS**	**PFOS**		

Homologaciones *Approvals Homologations*

FDA	BFR 1935/2004	KTW	WRAS	ACS CLP	KIWA	W270	EN681-1	W534	USP Class VI	3-A Sanitary	NSF61	UL	EN549	EN682
Conforme	Conforme								Conforme	Conforme				

Características *Technical properties Propriétés techniques*	**Método de prueba** *Test method Méthode*	**Valores garantizados** *Guaranteed values Valeurs garanties*	**Unidad de medida** *Unit of measure Unité de mesure*
Dureza *Hardness Dureté*	**VMQ** ASTM D 2240	**75** +/-5	Shore A
Peso específico *Specific gravity Poids spécifique*	**VMQ** ASTM D 792	**1,22** +/-0,03	g/cm^3
Resistencia a la tracción *Tensile strenght Résistance à la traction*	**FEP** ASTM D 2116-07 IV	**5000**	Psi
Resistencia a la tracción *Tensile strenght Résistance à la traction*	**VMQ** ASTM D 412	**110**	Kgf/cm2
Alargamiento a rotura *Elongation at break Allongement à la rupture*	**VMQ** ASTM D 412	**410**	%

JIORINGS
La forma más rápida de encontrar una junta
Polígono Erletxe, Plataforma H, Edificio 2, Nº5, 48960 Galdakano (Bizkaia)
T 94 401 44 20 F 94 600 90 93 E info@jiorings.com W www.jiorings.com

Deformación permanente a la presión *Compression set* *Déformation rémanente à la pression*					
Características *Technical properties* *Propriétés techniques*			**Método de prueba** *Test method* *Méthode*	**Valores garantizados** *Guaranteed values* *Valeurs garanties*	**Unidad de medida** *Unit of measure* *Unité de mesure*
Deform. 25%	24 h	175 ºC	ASTM D 395	**46,7**	%
Deform. 25%	24 h	23 ºC	ASTM D 395	**4,7**	%

MATERIAL TEST DATA – FEP

Gas Permeability (gm/2540mm²/24hrs based on 40mu FEP)

	23°C	35°C	50°C
Carbon dioxide	None	None	None
Helium	None	None	None
Hydrogen chloride	None	None	None
Nitrogen	0.18	None	None
Oxygen	None	None	None

Vapour Permeability (gm/2540mm²/24hrs based on 40mu FEP)

	23°C	35°C	50°C
Acetic Acid (Ethanoic Acid)	None	0.42	None
Acetone (Ethanone)	None	0.42	None
Benzene	0.15	0.64	None
N-Butyl ether	0.08	None	0.65
Decane	0.72	None	1.03
Ethanol	0.11	0.69	None
Ethyl acetate (Ethyl ethanoate)	0.06	0.77	2.90
Hexane	None	0.57	None
Hydrochloric acid 20%	None	None	None
Methanol	None	None	5.61
Piperidine (Pentamethyleneamine)	0.04	None	None
Sodium hydroxide 50%	None	None	None
Sulphuric acid	None	None	None
Tetrachloromethane	0.11	0.31	None
Toluene	0.37	None	2.93
Water	0.09	0.45	0.89

Polígono Erletxe, Plataforma H, Edificio 2, Nº5, 48960 Galdakano (Bizkaia)
T 94 401 44 20 F 94 600 90 93 E info@jiorings.com W www.jiorings.com

Absorption (168hrs at temperature stated, PFA & FEP)

	Test Temp. °C	Range of weight gain
Aniline	185	0.3 to 0.4%
Acetophenone	201	0.6 to 0.8%
Benzaldehyde	179	0.4 to 0.5%
Bromine	22	0.5% (PFA only)
Chlorine	120	0.5 to 0.6%
Chlorosulphonic acid	150	0.7 to 0.8%
Chromic acid 50%	120	0.01% both
Dimthyl sulphoxide	190	0.1 to 0.2%
Ferric chloride 25%	100	0.01% both
Freon 113	47	1.2% (PFA only)
Hydrochloric acid 37%	120	0.01 to 0.03%
Iso-octane	99	0.7 to 0.8%
Nitrobenzene	210	0.7 to 0.9%
Perchloroethylene	121	2.0 to 2.3%
Phosphoric acid	100	0.01% both
Sulphuryl chloride	68	1.7 to 2.7%
Tetrachloromethane	78	2.3 to 2.4%
Toluene	110	0.7 to 0.8%
Tributyl phosphate	200	1.8 to 2.0%
Zinc chloride	100	0.01% to 0.03%

Absorption (Long term at temperature stated, PFA & FEP)

	Test Temp. °C	Range of weight gain
Acetone (Ethanone)	50	0.4% on 12months
Ammonium hydroxide	70	0.1% on 12months
Ethanol 95%	50	0.01% on 12months
Ethanol 95%	70	0.01% on 2weeks
Ethyl acetate (Ethyl ethanoate)	50	0.7% on 12months
Hydrochloric acid 10%	70	0.01% on 12months
Nitric acid 10%	70	0.1% on 12months
Sodium hydroxide 10%	70	0.1% on 12months
Sulphuric acid 30%	70	0.01% on 12months
Tetrachloromethane	50	1.6% on 12months
Tetrachloromethane	70	1.9% on 2weeks
Toluene	50	0.6% on 12months
Toluene	70	0.6% on 2weeks

SPECIFICATIONS

Manufactured to meet the stringent requirements of AS568 / BS1806 tolerance specifications.

Restriction of hazardous substances (ROHS)

The restrictions of the use of certain Hazardous Substances (ROHS) Directives 2002/95/EC and 2002/96/EG came into force on 1st July 2006. Vulcan recognise these requirements and declare that all products sold by Vulcan Engineering Limited do comply with the European Directives.

Registration, evaluation, authorisation and restriction of chemicals (reach)

The EU Regulations (EC 1907/2006) came into force on 1st June 2007. Vulcan Engineering Limited are familiar with the European Regulation on chemicals being the producer of products from raw materials. The elements of our product that could be considered chemical based are in actual fact rubber, being Viton® and is classified in the Regulations as polymers and is therefore exempt.

JIORINGS
La forma más rápida de encontrar una junta
Polígono Erletxe, Plataforma H, Edificio 2, Nº5, 48960 Galdakano (Bizkaia)
T 94 401 44 20 F 94 600 90 93 E info@jiorings.com W www.jiorings.com

COMPLIANCES POLICY

FEP Encapsulation

FDA

The clear TEFLON FEP/PFA Encapsulation of our CHEM-RING Encapsulated 'O' Ring complies with Part 177 of Title 21 of the Food and Drug Administration regulations for safe use as articles or components of articles for producing, manufacturing, processing, preparing, treating, packing, transporting or holding food in accordance with FDA regulation 21.CFR.177.1550.

3A® Sanitary Standard

Further, we can advise that Table One (attached) of number 20-22 3A® Sanitary Standard documents that FEP and PFA materials, to the previously mentioned FDA 21.CFR.177.1550 Compliance standard, is also compliant to this 3A® Sanitary Standard Number 20-22.

USP Chapter 87 & 88 Class VI

FEP fluoropolymer has been tested in accordance with USP Protocol and meet the requirements of a USP Class VI plastic both Chapter 87 & Chapter 88.

EU VO 1935/2004

We have researched and evaluated BFR documentation especially “Recommendations of the Federal Institute for Risk Assessment on Plastics intended to come in to contact with Food”.

The principle underlying this Regulation is that any material or article intended to come into contact directly or indirectly with food must be sufficiently inert to preclude substances from being transferred to food in quantities large enough to endanger human health or to bring about an unacceptable change in the composition of the food or a deterioration in it’s organoleptic properties.

On our Encapsulated products, the outer encapsulation is a FEP melt processable polymer of PTFE. These material PTFE polymers are highly inert and are intensively used in industrial food processing and domestic food cooking equipment.

Vulcan FEP / PFA Encapsulated ‘O’ Rings Encapsulate materials and their manufacture are compliant with all relevant sections 1 to 21 of the E.C Regulation Number 1935/2004 and the subsequent Articles.

We are pleased to advise that FEP/PFA Encapsulated ‘O’ rings are compliant to EU VO 1935/2004 certification.

PFOA & PFOS

FEP fluoropolymer has been tested in accordance with US EPA 3550C:2007 protocol and meet the test conditions required. Since 2009 PFOD has been incorporated in to the Registration, Evaluation, Authorisation and Restriction (REACH) regulations, which is compliant with the SVHC list from ECHA updated twice yearly.

FDA VMQ Core

The VMQ core of our Encapsulated OR complies with Part 177 of Title 21 of the Food and Drug Administration regulations for safe use as articles or components of articles for producing, manufacturing, processing, preparing, treating, packing, transporting or holding food in accordance with FDA regulation 21.CFR.177.2600.

JIORINGS
La forma más rápida de encontrar una junta

Polígono Erletxe, Plataforma H, Edificio 2, Nº5, 48960 Galdakano (Bizkaia)
T 94 401 44 20 **F** 94 600 90 93 **E** info@jiorings.com **W** www.jiorings.com

1 Los datos que facilitamos son únicamente indicativos y deben ser utilizados por personas cualificadas técnicamente, bajo su responsabilidad y/o riesgos. JIOrings no asumirá ninguna responsabilidad por el uso indebido de los datos y de las informaciones. Además, este informe no puede ser utilizado para infringir las leyes y/o las patentes vigentes. Finalmente, destacamos que los resultados obtenidos en las piezas acabadas pueden ser bastante diferentes de los datos obtenidos en laboratorio a partir de probetas.

The information and data presented herein are, to the best of our knowledge, true and accurate. They are intended for use by persons having technical skill and their own discretion and risk; no warranty or guarantee, expressed or implied, is made and no liability is assumed By JIOrings in connection with any use of such information and data. Nothing herein shall be construed as a recommendation to infringe any existing patent or violate any applicable law. Finally, we'd like to stress that the final values on finished products can be roughly different than the ones obtained in laboratory on slabs and buttons.

Les données indiquées ne doivent être considérées qu'à titre indicatif et utilisées par du personnel qualifié techniquement, toujours sous sa responsabilité et/ou risques. JIOrings n'assumera aucune responsabilité quant à une utilisation erronée des données et des informations. De plus, ce rapport ne peut être utilisé pour enfreindre les lois et/ou les brevets en vigueur. Enfin, nous soulignons que les résultats obtenus sur des produits finis peuvent être relativement différents de ceux obtenus en laboratoire sur des échantillons.