



# VARINI GUARNIZIONI INDUSTRIALI

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## MATERIAL DATASHEET FKM 75

### PHYSICAL PROPERTIES

PROPRIETA'	PROPERTIES	TEST METHOD	UNITS	MEASURED VALUES
COLORE	COLOUR	-	-	BLACK
DUREZZA	HARDNESS	ASTM D 2240	SHORE A	75 ± 5
DENSITA'	DENSITY	ASTM D 792	$\frac{g}{cm^3}$	1.89
CARICO A ROTTURA	TENSILE STRENGTH	ASTM D 412 C	MPa	11
ALLUNGAMENTO A ROTTURA	ELONGATION AT BREAK	ASTM D 412 C	%	186
RESISTENZA A LACERAZIONE	TEAR STRENGTH	ASTM D 624BB	$\frac{N}{mm}$	27
TEMPERATURA DI SERVIZIO CONTINUA	CONTINUOUS SERVICE TEMPERATURE	-	°C	-15°C to 200°C
TEMPERATURA DI PICCO	SHORT PEAK TEMPERATURE	-	°C	-15°C to 220°C
BRITTLE POINT	TEMPERATURA DI INFRAGILIMENTO	ASTM D 2137	°C	-14
TR TESTS TR10	TR TEST TR10	ASTM D 1329	°C	-16
COMPRESSION SET SOLID 22 hrs @ 23°C	COMPRESSION SET SOLID 22 hrs @ 23°C	ASTM D 395 B	%	11
COMPRESSION SET PILED 22 hrs @ 23°C	COMPRESSION SET PILED 22 hrs @ 23°C	ASTM D 395 B	%	13

### CHANGE IN PROPERTIES AFTER AGING

#### Test Conditions ASTM D 573 (Aria-Air) / ASTM D 471 (Fluidi-Fluids)

AMBIENTE MEDIUM	TEMPO TIME	°C	DUREZZA HARDNESS	ΔTENSILE STRENGTH	ΔELONG. AT BREAK	ΔVOLUME	ΔWEIGHT
ARIA-AIR	70	250	+4	+4.5	-7	-	-
ARIA-AIR	70	275	+6	-21	-12	-	-
IRM 903	70	150	-1	-	-	+2	+1.2
FUEL C	70	23	-2	-12	-5	+1.5	+0.9
FLUID 101	70	200	-10	+8	-1.5	+10.2	+5

## CHEMICAL COMPATIBILITY CHART

A - ottima resistenza chimica, lieve rigonfiamento  
 B - buona resistenza chimica, consistente rigonfiamento  
 C - scarsa resistenza chimica, eccessivo rigonfiamento  
 NR - sconsigliato

A = Excellent chemical resistance, slight swelling  
 B = Fair chemical resistance, strong swelling  
 C = Poor chemical resistance, excessive swelling  
 NR – Not recommended

Sostanza	Substance	Recom. polimer	NBR	EPDM	HNBR	MVQ	FKM
Acetaldeide	Acetaldehyde	EPDM, MVQ	NR	A	–	AB	NR
Acetamide	Acetamide	NBR, EPDM	A	A	A	BC	AB
Acetato di Alluminio	Aluminum acetate	EPDM, FKM	B	A	–	NR	A
Acetato di Butile	Butyl acetate	EPDM	NR	BC	–	NR	NR
Acetato di Etile	Ethyl acetate	EPDM	NR	A	NR	B	NR
Acetato di Metile	Methyl acetate	EPDM	NR	AB	NR	NR	NR
Acetato Isopropilico	Isopropyl acetate	EPDM	NR	AB	NR	NR	NR
Acetilene	Acetylene	EPDM, NBR	A	A	–	BC	A
Aceto	Vinegar	NBR, FKM, EPDM	B	A	–	A	A
Acetofenone	Acetophenone	EPDM	NR	A	–	NR	C
Acetone	Acetone	EPDM	NR	A	NR	BC	NR
Acidi Grassi	Fatty acids	FKM, NBR	A	NR	B	C	A
Acido Acetico	Acetic acid	EPDM	C/NR	A	–	B	NR
Acido Cianidrico	Hydrocyanic acid	EPDM, FKM	B	A	B	AC	A
Acido Cloridrico	Hydrochloric acid	FKM, HNBR	NR	BC	BC	B	AB
Acido Cromico	Chromic acid	EPDM, FKM	NR	B	NR	B	A
Acido Fluoridrico	Hydrofluoric acid	EPDM	NR	B	–	NR	NR
Acido Formico	Formic acid	EPDM	NR	A	–	C	BC
Acido Fosforico	Phosphoric acid	EPDM, FKM	C	A	–	NR	C
Acido Nitrico	Nitric acid	FKM	NR	C	NR	B	C
Acido Solforico	Sulfuric acid	FKM, EPDM	NR	B	–	NR	C
Acido Tannico	Tannic acid	NBR, EPDM, FKM	A	A	A	B	A
Acqua di mare	Sea water	NBR, EPDM	A	A	A	AB	A
Acqua ossigenata	Hydrogen peroxide	FKM, MVQ	BC	BC	B	A	A
Acqua potabile	Drinking water	NBR, EPDM	A	A	A	B	A
Acqua vapore saturo	Saturated steam	EPDM	NR	A	–	NR	B
Acqua vapore+acqua 100°C	Steam 100°C	EPDM	NR	A	–	NR	NR
Acquaragia	Turpentine	NBR, FKM, HNBR	AB	NR	A	NR	A
Acque di scarico	Sewage	EPDM, NBR	A	A	A	AB	A
Alcool Butilico (Butanolo)	Butyl alcohol	NBR, FKM, EPDM	AB	AB	A	B	A
Alcool Etilico (Etanolo)	Ethyl alcohol	EPDM, NBR, FKM	AB	A	A	B	A
Alcool Metilico (Metanolo)	Methyl alcohol	NBR, EPDM	A	A	A	A	A
Ammine	Amine	EPDM	C/NR	AB	–	BC	NR
Ammoniaca gas/20°C	Ammonia gas	NBR, EPDM	A	A	A	B	NR
Ammoniaca soluzione	Ammonia solution	EPDM, NBR	A	A	A	AB	AB
Anilina	Aniline	EPDM, MVQ	NR	AB	–	A	C
Benzene	Benzene	FKM	NR	NR	NR	NR	C
Butadiene	Butadien	FKM	NR	NR	C	NR	AB
Creosoto	Creosote	NBR, FKM	AB	NR	–	NR	A
Esafuoro zolfo SF <sub>6</sub>	Sulfur hexafluoride SF <sub>6</sub>	EPDM	B	A	B	AB	NR

Sostanza	Substance	Recom. polimer	NBR	EPDM	HNBR	MVQ	FKM
Etere isopropilico	<i>Isopropyl ether</i>	NBR	AB	NR	B	NR	NR
Etileneglicole + H <sub>2</sub> O	<i>Ethylene glycol + water</i>	EPDM, NBR, FKM	A	A	A	A	A
Formaldeide (Formalina)	<i>Formaldehyde</i>	EPDM, NBR	B	A	–	A	A
Freon 114 B2	<i>Freon 114 B2</i>	NBR, FKM	AB	NR	B	NR	B
Freon 12	<i>Freon 12</i>	NBR, FKM	A	AB	A	NR	B
Fuel ASTM C	<i>ASTM ref. Fuel C</i>	FKM	BC	NR	B	NR	A
Fuel FAM I	<i>Fuel FAM I</i>	FKM	NR	C	C	C	A
Fuel FAM II (M15)	<i>Fuel FAM II (M15)</i>	FKM	C	C	C	C	A
Gasolio	<i>Diesel oil</i>	NBR	A	NR	A	NR	A
Idrazina	<i>Hydrazine</i>	EPDM	B	A	B	NR	NR
Idrossido Na al 25%	<i>Sodium hydroxide 25%</i>	EPDM, NBR	A	A	B	A	A
Idrossido Na al 50%	<i>Sodium hydroxide 50%</i>	EPDM, NBR	A	A	B	A	B
Iodio	<i>Iodine</i>	FKM, EPDM	AB	AB	A	C	A
Ipcloclorico di Sodio	<i>Sodium hypochlorite</i>	EPDM, NBR, FKM	B	AB	B	B	B
Kerosene (JP 1)	<i>Kerosene (JP 1)</i>	NBR, FKM	A	NR	A	NR	A
LPG	<i>LPG</i>	NBR, FKM	A	NR	A	NR	A
Lubrificanti sintetici	<i>Lubricating oils, synthetic</i>	NBR, FKM	A	NR	B	NR	A
MEK Metiletichetone	<i>MEK Methylketone</i>	EPDM	NR	AB	NR	NR	NR
Mercurio	<i>Mercury</i>	NBR, EPDM, FKM	A	A	A	A	A
Metano (100 bar)	<i>Methane (100 bar)</i>	NBR, FKM	A	NR	A	NR	A
Metanolo/acqua 50%/50%	<i>Methanol/water 50%/50%</i>	EPDM	C	A	B	A	A
Olio ASTM 1	<i>ASTM ref. nr 1 oil</i>	NBR, FKM	A	NR	A	AB	A
Olio ASTM 2	<i>ASTM ref. nr 2 oil</i>	NBR, FKM	A	NR	A	AB	A
Olio ASTM 3	<i>ASTM ref. nr 3 oil</i>	NBR, FKM	A	NR	A	BC	A
Olio ATF	<i>ATF fluid</i>	NBR, FKM	A	NR	A	NR	A
Olio freni DOT 4	<i>Brake fluid DOT 4</i>	EPDM	NR	A	–	C	NR
Olio SAE 20W20	<i>SAE 20W20</i>	NBR, FKM	A	NR	NR	NR	A
Olio Silicone	<i>Silicone oils</i>	EPDM, NBR, FKM	A	A	A	NR	A
Ossigeno liquido	<i>Liquid oxigen</i>	FKM, MVQ	NR	NR	NR	NR	NR
Ozono	<i>Ozone</i>	EPDM, NBR, FKM	BC	A	BC	A	A
Petrolio	<i>Petroleum</i>	NBR, FKM	A	NR	A	NR	AB
Propano	<i>Propane</i>	NBR, FKM	A	NR	A	NR	A
Resine Epossidiche	<i>Epoxyresins</i>	EPDM	NR	A	–	NR	NR
Gas acido (H <sub>2</sub> S, CH <sub>4</sub> , CO <sub>2</sub> )	<i>Sour env. (H<sub>2</sub>S, CH<sub>4</sub>, CO<sub>2</sub>)</i>	HNBR	NR	NR	A	NR	B
Xilolo	<i>Xylo</i>	FKM	NR	NR	NR	NR	AB