



DONIFLEX® G-MD is an advanced composite material based on graphite and aramid manufactured under organic solvent-free conditions. DONIFLEX® G-MD combines the advantages of the chemical and thermal resistance of graphite with the strength of aramid. This "medium density" material has good stress resistance for gaskets with narrow-width. It is particularly suitable for steam and hot water supplies as well as for boilers or radiators.

PROPERTIES

SUPERIOR				
EXCELENT		THERMAL RESISTANCE		CHEMICAL RESISTANCE
VERY GOOD				
GOOD	MECHANICAL RESISTANCE		SEALABILITY PERFORMANCE	
MODERATE				

APPROPRIATE INDUSTRIES & APPLICATIONS

	GENERAL PURPOSE		AUTOMOTIVE AND ENGINE BUILDING INDUSTRY
	WATER SUPPLY		SHIPBUILDING
	STEAM SUPPLY		POWER PLANT
	PETROCHEMICAL INDUSTRY		HEATING SYSTEMS
	PAPER AND CELLULOSE INDUSTRY		HIGH TEMP. APPLICATIONS

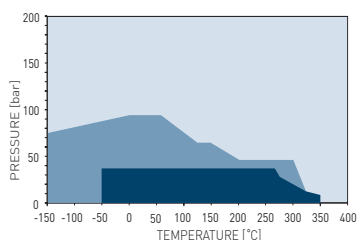
Composition	Aramid fibres, natural graphite, inorganic fillers, NBR binder.
Colour	Grey
Approvals	Please inquire.

TECHNICAL DATA Typical values for a thickness of 1 mm

Density	DIN 28090-2	g/cm ³	1.4
Compressibility	ASTM F36J	%	20
Recovery	ASTM F36J	%	32
Tensile strength	ASTM F152	MPa	9
Stress resistance	DIN 52913		
50 MPa, 16 h, 175 °C		MPa	45
50 MPa, 16 h, 300 °C		MPa	40
Specific leak rate	DIN 3535-6	mg/(s·m)	0.5
Thickness increase	ASTM F146		
Oil IRM 903, 5 h, 150 °C		%	5
ASTM Fuel B, 5 h, 23 °C		%	5
Weight increase			
Oil IRM 903, 5 h, 150 °C		%	20
ASTM Fuel B, 5 h, 23 °C		%	17
Compression modulus	DIN 28090-2		
At room temperature: ϵ_{KSW}		%	17
At elevated temperature: $\epsilon_{WSW/200\text{ °C}}$		%	5
Percentage creep relaxation	DIN 28090-2		
At room temperature: ϵ_{KRW}		%	2.6
At elevated temperature: $\epsilon_{WRW/200\text{ °C}}$		%	0.2
Creep deformation			
Change in thickness at 20 °C, 50 MPa		%	18
Change in thickness at 300 °C, 50 MPa		%	10
Change in thickness at 400 °C, 50 MPa		%	15

P-T DIAGRAM

EN 1514-1, Type IBC, PN 40, DIN 28091-2 / 3.8, 2.0 mm



- General suitability - Under common installation practices and chemical compatibility.
- Conditional suitability - Appropriate measures ensure maximum performance for joint design and gasket installation. Technical consultation is recommended.
- Limited suitability - Technical consultation is mandatory.

Dimensions of standard sheets

Sheet size (mm): 1500 x 1480 | 2000 x 1480

Thickness (mm): 0.5 | 1.0 | 1.5 | 2.0 | 3.0

Other dimensions and thicknesses are available on request.

Acetamide	+	Dioxane	?	Oleic acid	+
Acetic acid, 10%	+	Diphtyl (Dowtherm A)	+	Oleum (Sulfuric acid, fuming)	-
Acetic acid, 100% (Glacial)	?	Esters	?	Oxalic acid	+
Acetone	?	Ethane (gas)	+	Oxygen (gas)	+
Acetonitrile	-	Ethers	?	Palmitic acid	+
Acetylene (gas)	+	Ethyl acetate	?	Paraffin oil	+
Acid chlorides	-	Ethyl alcohol (Ethanol)	+	Pentane	+
Acrylic acid	+	Ethyl cellulose	?	Perchloroethylene	?
Acrylonitrile	-	Ethyl chloride (gas)	?	Petroleum (Crude oil)	+
Adipic acid	+	Ethylene (gas)	+	Phenol (Carbolic acid)	-
Air (gas)	+	Ethylene glycol	+	Phosphoric acid, 40%	?
Alcohols	+	Formaldehyde (Formalin)	?	Phosphoric acid, 85%	?
Aldehydes	?	Formamide	+	Phthalic acid	+
Alum	+	Formic acid, 10%	+	Potassium acetate	+
Aluminium acetate	+	Formic acid, 85%	?	Potassium bicarbonate	+
Aluminium chlorate	+	Formic acid, 100%	?	Potassium carbonate	+
Aluminium chloride	+	Freon-12 (R-12)	+	Potassium chloride	+
Aluminium sulfate	+	Freon-134a (R-134a)	+	Potassium cyanide	+
Amines	-	Freon-22 (R-22)	?	Potassium dichromate	?
Ammonia (gas)	?	Fruit juices	+	Potassium hydroxide	?
Ammonium bicarbonate	+	Fuel oil	+	Potassium iodide	+
Ammonium chloride	+	Gasoline	+	Potassium nitrate	+
Ammonium hydroxide	?	Gelatin	+	Potassium permanganate	?
Amyl acetate	?	Glycerine (Glycerol)	+	Propane (gas)	+
Anhydrides	?	Glycols	+	Propylene (gas)	+
Aniline	-	Helium (gas)	+	Pyridine	-
Anisole	+	Heptane	+	Salicylic acid	?
Argon (gas)	+	Hydraulic oil (Glycol based)	+	Seawater/brine	+
Asphalt	+	Hydraulic oil (Mineral type)	+	Silicones (oil/grease)	+
Barium chloride	+	Hydraulic oil (Phosphate ester based)	+	Soaps	+
Benzaldehyde	?	Hydrazine	-	Sodium aluminate	+
Benzene	+	Hydrocarbons	+	Sodium bicarbonate	+
Benzoic acid	+	Hydrochloric acid, 10%	?	Sodium bisulfite	+
Bio-diesel	+	Hydrochloric acid, 37%	-	Sodium carbonate	+
Bio-ethanol	+	Hydrofluoric acid, 10%	-	Sodium chloride	+
Black liquor	+	Hydrofluoric acid, 48%	-	Sodium cyanide	+
Borax	+	Hydrogen (gas)	+	Sodium hydroxide	?
Boric acid	+	Iron sulfate	+	Sodium hypochlorite (Bleach)	?
Butadiene (gas)	+	Isobutane (gas)	+	Sodium silicate (Water glass)	+
Butane (gas)	+	Isooctane	+	Sodium sulfate	+
Butyl alcohol (Butanol)	+	Isoprene	+	Sodium sulfide	+
Butyric acid	+	Isopropyl alcohol (Isopropanol)	+	Starch	+
Calcium chloride	+	Kerosene	+	Steam	+
Calcium hydroxide	+	Ketones	?	Stearic acid	+
Carbon dioxide (gas)	+	Lactic acid	+	Styrene	?
Carbon monoxide (gas)	+	Lead acetate	+	Sugars	+
Cellosolve	?	Lead arsenate	+	Sulfur	?
Chlorine (gas)	?	Magnesium sulfate	+	Sulfur dioxide (gas)	?
Chlorine (in water)	?	Maleic acid	+	Sulfuric acid, 20%	-
Chlorobenzene	?	Malic acid	+	Sulfuric acid, 98%	-
Chloroform	?	Methane (gas)	+	Sulfuryl chloride	-
Chloroprene	?	Methyl alcohol (Methanol)	+	Tar	+
Chlorosilanes	?	Methyl chloride (gas)	?	Tartaric acid	+
Chromic acid	-	Methylene dichloride	?	Tetrahydrofuran (THF)	?
Citric acid	+	Methyl ethyl ketone (MEK)	?	Titanium tetrachloride	+
Copper acetate	+	N-Methyl-pyrrolidone (NMP)	?	Toluene	+
Copper sulfate	+	Milk	+	2,4-Toluenediisocyanate	?
Creosote	?	Mineral oil (ASTM no. 1)	+	Transformer oil (Mineral type)	+
Cresols (Cresylic acid)	?	Motor oil	+	Trichloroethylene	?
Cyclohexane	+	Naphtha	+	Vinegar	+
Cyclohexanol	+	Nitric acid, 10%	?	Vinyl chloride (gas)	?
Cyclohexanone	?	Nitric acid, 65%	-	Vinylidene chloride	?
Decalin	+	Nitrobenzene	?	Water	+
Dextrin	+	Nitrogen (gas)	+	White spirits	+
Dibenzyl ether	?	Nitrous gases (NOx)	?	Xylenes	+
Dibutyl phthalate	?	Octane	+	Xylenol	-
Dimethylacetamide (DMA)	?	Oils (Essential)	+	Zinc sulfate	+
Dimethylformamide (DMF)	?	Oils (Vegetable)	+		

CHEMICAL RESISTANCE CHART

The recommendations made here are intended to be a guideline for the selection of the suitable gasket quality. Because the function and durability of the products depend upon a number of factors, the data may not be used to support any warranty claims.

- + Recommended
- ? Recommendation depends on operating conditions
- Not recommended



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