



Doniflex® C is a high density cellulose fiber material, manufactured by the beater addition process under ecological, solvent-free conditions.

## PROPERTIES

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

## APPROPRIATE INDUSTRIES & APPLICATIONS

-  GENERAL PURPOSE
-  AUTOMOTIVE AND ENGINE BUILDING INDUSTRY
-  WATER SUPPLY
-  SHIPBUILDING
-  PAPER AND CELLULOSE INDUSTRY

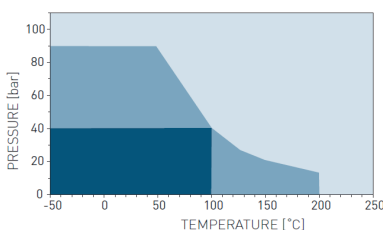
Composition	Reinforced cellulose fibers, inorganic filler bonded with nitrile butadiene rubber binder.
Applications	Excellent strength and very good sealing performance against fluids in particular suitable for sealing oil, fuels, refrigerants and water in applications such as water pumps, oil pan gaskets, carburetors, radiators ... with continuous operating temperatures up to 180 °C, with short duration maximum 200 °C. It's a low-abrasive material, offering easy cutting and reduces die wear, which can yield significant savings in production.
Approvals	On request

## TECHNICAL DATA Typical values for a thickness of 1.5 mm

<b>Density</b>	DIN 28090-2	g/cm <sup>3</sup>	1.5
<b>Compressibility</b>	ASTM F36J	%	16
<b>Recovery</b>	ASTM F36J	%	42
<b>Tensile strength</b>	ASTM F152	MPa	>16
<b>Stress resistance</b>	DIN 52913		
16 h, 50 MPa, 175 °C		MPa	17
<b>Gas leakage</b> (nitrogen at 14,5 psi (1 bar)), gasket stress at 6.9 MPa; ø44.3X32.2mm	ASTM F 37-B	ml/min	0.053
<b>Fluid leakage</b> (Fuel A-isooctane at 75 psi (5.2 bar)), gasket stress at 10 MPa; ø44.3X32.2mm	ASTM F 37-B	ml/min	0.033
<b>Fluid leakage</b> (IRM 903 at 58 psi (4 bar)), gasket stress at 3.4 MPa; ø44.3X32.2mm	ASTM F 37-B	ml/min	0,0
<b>Fluid leakage</b> (water/glicol at 14.5 psi (1 bar)), gasket stress at 3.4 MPa; ø44.3X32.2mm	ASTM F 37-B	ml/min	0.005
<b>Thickness increase</b>	ASTM F 146	%	
Oil IRM 903, 5 h, 150 °C		%	<6
Fuel B, 5 h, 23 °C		%	<6
<b>Weight increase</b>	ASTM F 146		
Oil IRM 903, 5 h, 150 °C		%	<13
Fuel B, 5 h, 23 °C		%	<13

## P-T DIAGRAM

EN 1514-1, Type IBC, PN 40, DIN 28091-2 / 3.8, 1.5 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.

**P-T diagrams** indicate the maximum permissible combination of internal pressure and service temperature which can be simultaneously applied for a given gasket according its material type, thickness, size and tightness class. Given the wide variety of gasket applications and service conditions, these values should only be regarded as guidance for the proper gasket assembly. In general, thinner gaskets exhibit better P-T properties.

Surface finish	Standard: without anti-stick treatment. Optional: silver anti-stick on top and bottom layers or PTFE anti-stick.	
Standard dimensions of sheets	Size (mm): 1000x1480   1500x1480 Thickness (mm): 0.5   0.8   1.0   1.5   2.0   3.0 Other sizes and thicknesses on request.	Rolls size (mm x L m): 1480 x L Thickness (mm): 0.8   1.0   1.5   2.0
Tolerances	On length and width: $\pm 5\%$	On thickness up to 1.0 mm: $\pm 0.1$ mm On thickness above 1.0 mm: $\pm 10\%$

Acetamide	+	Isobutane	+
Acetic acid 10%	+	Isooctane	+
Acetic acid 100%	?	Isopropyl alcohol	+
Acetic ester	?	Kerosene	+
Acetone	?	Lead acetate	+
Acetylene	+	Lead arsenate	+
Adipic acid	+	Magnesium sulphate	+
Air	+	Malic acid	+
Alum	+	Methane	+
Aluminium acetate	+	Methanol	+
Aluminium chlorate	+	Methyl chloride	?
Aluminium chloride	+	Methylene dichloride	-
Ammonia	?	Methyl ethyl ketone	?
Ammonium bicarbonate	+	Milk	+
Ammonium chloride	+	Mineral oil type ASTM no.1	+
Ammonium hydroxide	?	Naphtha	+
Amyl acetate	?	Nitric acid 20%	-
Aniline	-	Nitric acid 40%	-
Asphalt	+	Nitric acid 96%	-
Barium chloride	+	Nitrobenzene	-
Benzene	?	Nitrogen	+
Benzoic acid	+	Octane	?
Boric acid	+	Oleic acid	+
Borax	+	Oleum	-
Butane	+	Oxalic acid	?
Butyl alcohol	+	Oxygen	+
Butyric acid	+	Palmitic acid	+
Calcium chloride	+	Pentane	?
Calcium hydroxide	+	Perchloroethylene	?
Carbone dioxide	+	Phenol	-
Carbon disulphide	-	Phosphoric acid	-
Chloroform	?	Potassium acetate	+
Chlorine, dry	-	Potassium bicarbonate	+
Chlorine, wet	-	Potassium carbonate	+
Chromic acid	-	Potassium chloride	+
Citric acid	+	Potassium dichromate	+
Copper acetate	+	Potassium hydroxide	?
Creosote	-	Potassium iodide	+
Cresol	-	Potassium nitrate	+
Cyclohexanol	+	Potassium permanganate	+
Cyclohexanone	-	Propane	?
Decalin	?	Pyridine	-
Dibenzyl ether	-	R 134a	?
Dimethyl formamide	-	Salicylic acid	+
Dowtherm	?	Silicone oil	+
Ethane	+	Soap	+
Ethyl acetate	?	Sodium aluminate	+
Ethyl alcohol	+	Sodium bicarbonate	+
Ethyl chloride	-	Sodium bisulphite	+
Ethylene	+	Sodium carbonate	+
Ethylene glycol	+	Sodium chloride	+
Formic acid 10%	?	Sodium cyanide	+
Formic acid 85%	?	Sodium hydroxide	-
Formaldehyde	+	Sodium sulphate	+
Freon 12	?	Sodium sulphide	+
Freon 22	-	Starch	+
Fuel oil	+	Steam	?
Gasoline	+	Stearic acid	+
Glycerine	+	Sugar	+
Heptane	+	Sulphuric acid 20%	-
Hydraulic oil (Mineral)	?	Sulphuric acid 96%	-
Hydraulic oil (Phosphate esther type)	?	Tar	+
Hydraulic oil (Glycol based)	+	Tartaric acid	+
Hydrazine	+	Toluene	+
Hydrochloric acid 20%	-	Transformer oil	+
Hydrochloric acid 36%	-	Trichlorethylene	?
Hydrofluoric acid 10%	-	Water	+
Hydrofluoric acid 40%	-	White spirit	?
Hydrogen	+	Xylene	?

All information and data quoted are based upon decades of experience in the production and operation of sealing elements. This data may not be used to support any warranty claims. With its publication this latest edition supersedes all previous issues and is subject to change without further notice.

## CHEMICAL RESISTANCE CHART

The recommendations made here are intended as a guideline for the selection of a suitable gasket type. As the function and durability of products are dependent 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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