MECALINE

Tubings for pneumatics systems and industrial applications

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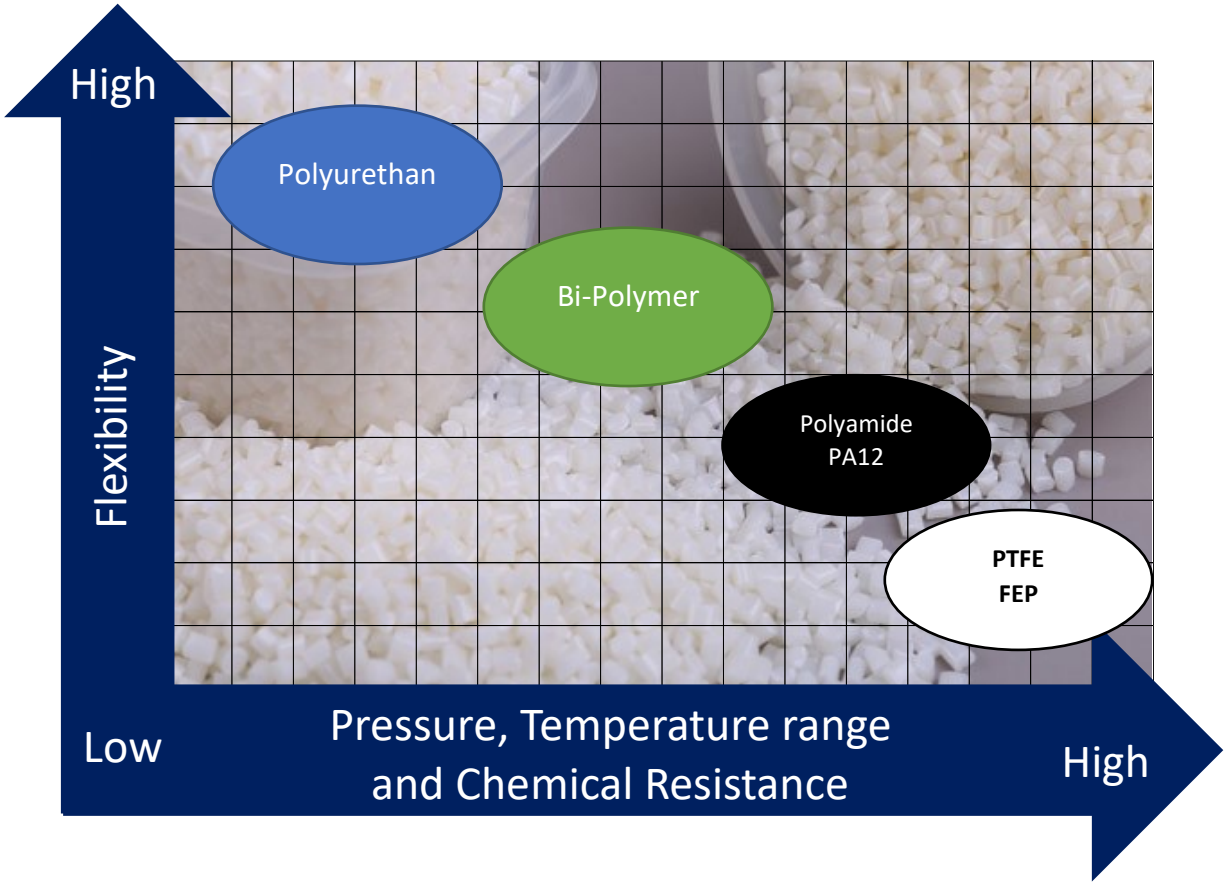


1. PU – POLYURETHANE TUBING

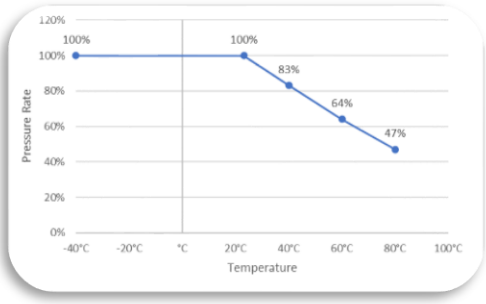
MECALINE Polyurethane tubings Shore 98 A, flexible translucent or coloured with great flexibility with very good flexibility and high dimensional accuracy. These tubes are particularly indicated for the pneumatic market, when a tight bending radius is needed for installation in narrow cabinets, Temperature range: from -40°C to +60°C.

External Diameter (mm)	Internal Diameter (mm)	Wall (mm)	Working Pressure at 23°C (Bar)	Burst Pressure (Bar)	Bending Ration (mm)	CODE 25m	CODE 100m	Colour
4	2	1	25	74	15		884956	Blue
4	2.5	0.75	15	45	10	785573	785594	Blue
4	2.5	0.75	15	45	10	785570	785593	Black
4	2.5	0.75	15	45	10	785574		Natural
4	2.5	0.75	15	45	10	894157		Yellow
4	2.5	0.75	15	45	10	785571		Green
4	2.5	0.75	15	45	10	785572		Red
6	4	1	13	39	20	785578	785596	Blue
6	4	1	13	39	20	785575	785595	Black
6	4	1	13	39	20	785580		Natural
6	4	1	13	39	20		894165	Transparent
6	4	1	13	39	20	785579		Yellow
6	4	1	13	39	20	785576		Green
6	4	1	13	39	20	785577		Red
8	5.5	1.25	14	41	35	785584	785598	Blue
8	5.5	1.25	14	41	35	785581	785597	Black
8	5.5	1.25	14	41	35	785586		Natural
8	5.5	1.25	14	41	35	785585		Yellow
8	5.5	1.25	14	41	35	785582		Green
8	5.5	1.25	14	41	35	785583		Red
8	5.7	1.125	12	37	25		894166	Transparent
10	7	1.5	14	41	25	785588	785600	Blue
10	7	1.5	14	41	25	785587	785599	Black
10	7	1.5	14	41	25	785589		Natural
10	7	1.5	14	41	25	894160		Yellow
10	7	1.5	14	41	25	894159		Green
10	7	1.5	14	41	25	894158		Red
12	8	2	13	39	35	785591		Blue
12	8	2	13	39	35	785590		Black
12	8	2	13	39	35	785592		Natural
12	8	2	13	39	35	894161		Yellow
12	8	2	13	39	35	894162		Green
12	8	2	13	39	35	894163		Red
12	9	1.5	11	32	45		884961	Blue

Temperature Range:

From -40°C to +60°C

Pressure variation as function of the temperature:



Tolerance on external diameter:

From 4 mm to 8 mm : +/- 0.10 mm

From 10 mm to 12 mm : +/- 0.15 mm

2. BI-PO – BI-POLYMER TUBING

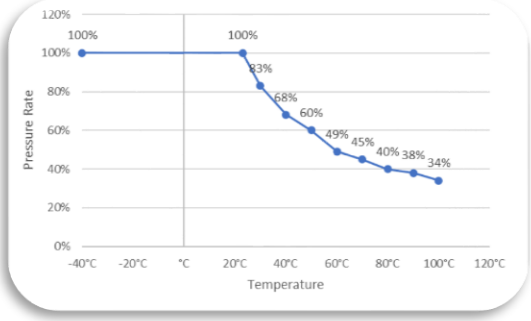
MECALINE Bi-Polymer tubing is very innovative combining in one product the best properties of Polyurethane and Polyamide. An exclusive recipe of co-polymers that grants to the tubing high flexibility and kinking behaviour, very good dimensional stability, good resistance to hydrolysis, good chemical resistance, excellent temperature resistance (from -40°C to +100°C).

External Diameter (mm)	Internal Diameter (mm)	Wall (mm)	Working Pressure at 23°C (Bar)	Burst Pressure (Bar)	Bending Ration (mm)	CODE 25m	CODE 100m	Colour
4	2.5	0.75	22	65	10	860502	860523	Blue
4	2.5	0.75	22	65	10	860500	860521	Natural
4	2.5	0.75	22	65	10	860501	860522	Black
4	2.5	0.75	22	65	10	860503	860524	Green
4	2.5	0.75	22	65	10	860504	860525	Red
4	2.5	0.75	22	65	10	860505	860526	Yellow
6	4	1	19	57	15	846239	846248	Blue
6	4	1	19	57	15	846237	846246	Natural
6	4	1	19	57	15	846238	846247	Black
6	4	1	19	57	15	860506	860527	Green
6	4	1	19	57	15	860507	860528	Red
6	4	1	19	57	15	860508	860529	Yellow
8	6	1	16	47	25	846242	846251	Blue
8	6	1	16	47	25	846240	846249	Natural
8	6	1	16	47	25	846241	846250	Black
8	6	1	16	47	25	860509	860530	Green
8	6	1	16	47	25	860510	860531	Red
8	6	1	16	47	25	860511	860532	Yellow
10	8	1	12	36	35	846245	860534	Blue
10	8	1	12	36	35	846243	846252	Natural
10	8	1	12	36	35	846244	860533	Black
10	8	1	12	36	35	860512	860535	Green
10	8	1	12	36	35	860513	860536	Red
10	8	1	12	36	35	860514	860537	Yellow
12	9	1.5	13	40	45	860517	860540	Blue
12	9	1.5	13	40	45	860515	860538	Natural
12	9	1.5	13	40	45	860516	860539	Black
12	9	1.5	13	40	45	860518	860541	Green
12	9	1.5	13	40	45	860519	860542	Red
12	9	1.5	13	40	45	860520	860543	Yellow

Temperature Range:

From -40°C to +100°C

Pressure variation as function of the temperature:



Tolerance on external diameter:

From 4 mm to 10 mm : +/- 0.10 mm

12 mm : +/- 0.15 mm

3. PA – POLYAMIDE TUBING

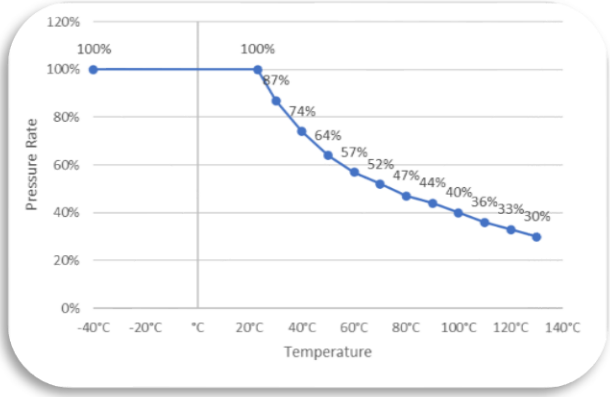
MECALINE Polyamide tubes made from high performance long chain polyamides for industrial and automotive applications. Broad chemical compatibility. Resistant to many aggressive liquids. Excellence in mechanical qualities.
Temperature range: from -60°C to +130°C

External Diameter (mm)	Internal Diameter (mm)	Wall (mm)	Working Pressure at 23°C (Bar)	Burst Pressure (Bar)	Bending Ration (mm)	CODE 25m	CODE 100m	Colour
4	2.7	0.65	27	81	25	846308	846335	Blue
4	2.7	0.65	27	81	25	846314	846338	Black
4	2.7	0.65	27	81	25	846302	846332	Natural
4	2.7	0.65	27	81	25	846320		Yellow
4	2.7	0.65	27	81	25	846324		Green
4	2.7	0.65	27	81	25	846328		Red
6	4	1	28	84	35	846309	846336	Blue
6	4	1	28	84	35	846315	846339	Black
6	4	1	28	84	35	846303	846333	Natural
6	4	1	28	84	35	846321		Yellow
6	4	1	28	84	35	846325		Green
6	4	1	28	84	35	846329		Red
8	6	1	20	60	40	846310	846337	Blue
8	6	1	20	60	40	846316	846340	Black
8	6	1	20	60	40	846304	846334	Natural
8	6	1	20	60	40	846322		Yellow
8	6	1	20	60	40	846326		Green
8	6	1	20	60	40	846330		Red
10	8	1	16	48	60	846311		Blue
10	8	1	16	48	60	846317		Black
10	8	1	16	48	60	846305	853577	Natural
10	8	1	16	48	60	846323		Yellow
10	8	1	16	48	60	846327		Green
10	8	1	16	48	60	846331		Red
12	10	1	13	39	85	846312		Blue
12	10	1	13	39	85	846318		Black
12	10	1	13	39	85	846306	885883	Natural
14	12	1	11	33	86	846307		Natural

Temperature Range:

From -60°C to +130°C

Pressure variation as function of the temperature:



Tolerance on external diameter:

From 4 mm to 10 mm : +/- 0.10 mm

From 12 mm to 14 mm : +/- 0.15 mm

4. PTFE TUBING

PTFE (Polytetrafluoroethylene) tubing is used in the food industry, where its non-stick properties allow it not to retain water or foodstuffs. It is very chemically stable and is often used in containers and tubes for corrosive chemicals.

Features:

- High temperature resistance (+ 250 ° C)
- Very low coefficient of friction
- Approved for food contact
  - FDA (Food and Drugs Administration) of 21 CFR 177.1550.
  - EU Regulation No. 10/2011 of January 14, 2011
  - EU Regulation No. 2020/1245 of September 02, 2020
  - EC Regulation 1935/2004 article 3
  - EC Regulation 2023/2006 of 22 December 2006

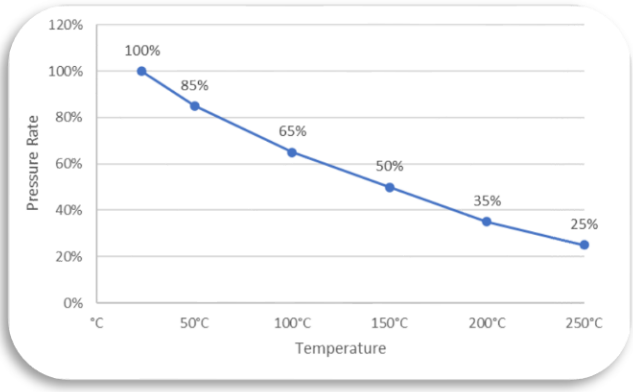
  The tubes have been tested for all major food types. Simulants used A, B, C, D1, D2. Test condition OM6 (4h at 100°C)
- Excellent chemical resistance
- Fire resistance according UL94 V-0
- Silicone free

External Diameter (mm)	Internal Diameter (mm)	Wall (mm)	Working Pressure at 23°C (Bar)	Burst Pressure (Bar)	Bending Ration (mm)	CODE 25m	CODE 100m (on demand)
4	2	1	31	90	20	853579	894213
6	4	1	18	56	40	853580	894214
8	6	1	13	40	65	853581	894215
10	8	1	10	31	100	853582	894216
12	10	1	8	25	145	853583	894217

Temperature Range:

From -60°C to +250°C

Pressure variation as function of the temperature:



Tolerance on external diameter:

From 4 mm to 8 mm : +/- 0.10 mm

From 10 mm to 15 mm : +/- 0.15 mm

5. FEP TUBING

FEP (fluorinated ethylene propylene) tube offers excellent chemical resistance, surface smoothness, transparency. The purity of FEP tubes makes them the material of choice in many fluid processing applications in the semiconductor, chemical processing plant, instrumentation, biotechnology and medical markets.

Features:

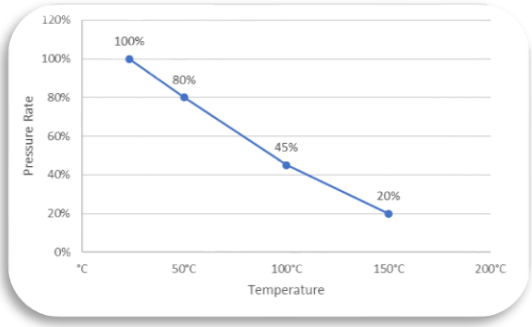
- Good optical clarity
- Very smooth internal surfaces
- Reduced gas diffusion
- Excellent chemical resistance
- Approved for food contact
  - FDA (Food and Drugs Administration) of 21 CFR 177.1550.
  - EU Regulation No. 10/2011 of January 14, 2011
  - EU Regulation No. 2020/1245 of September 02, 2020
  - EC Regulation 1935/2004 article 3
  - EC Regulation 2023/2006 of 22 December 2006
  - NSF51
- Fire resistance according UL94 V-0
- Ideal for thermoforming
- Wide temperature range from -60 ° C to 205 ° C
- Tight dimensional tolerances
- Biocompatible

External Diameter (mm)	Internal Diameter (mm)	Wall (mm)	Working Pressure at 23°C (Bar)	Burst Pressure (Bar)	Bending Ration (mm)	CODE 25m
6	4	1	19	96	36	860545
8	6	1	14	70	64	860546

Temperature Range:

From -60°C to +205°C

Pressure variation as function of the temperature:



Tolerance on external diameter:

From 4 mm to 8 mm : +/- 0.10 mm

6. PFA TUBING

PFA (Perfluoroalkoxy) is the last significant development in the field of fully fluorinated plastics and dates back to 1972. The perfluoroalkoxy group has a different viscosity, allows conventional molding and extrusion, and has improved mechanical strength (versus PTFE) at high temperatures (versus FEP).

Features:

- Good optical clarity
- Very smooth internal surfaces
- Reduced gas diffusion
- Excellent chemical resistance
- Approved for food contact
  - FDA (Food and Drugs Administration) of 21 CFR 177.1550.
  - EU Regulation No. 10/2011 of January 14, 2011
  - EU Regulation No. 2020/1245 of September 02, 2020
  - EC Regulation 1935/2004 article 3
  - EC Regulation 2023/2006 of 22 December 2006

  The tubes have been tested for all major food types. Simulants used A, B, C, D1, D2. Test condition OM6 (4h at 100°C)
- Fire resistance according UL94 V-0
- Ideal for thermoforming
- Wide temperature range from -196 ° C to 260 ° C
- Tight dimensional tolerances
- Silicone free

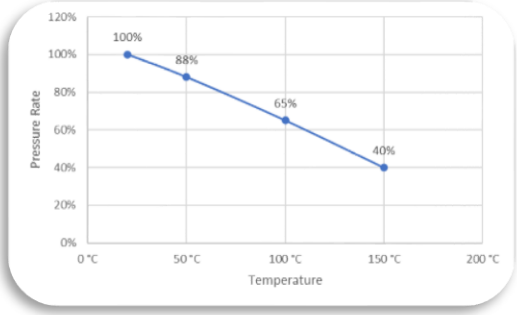
External Diameter (mm)	Internal Diameter (mm)	Wall (mm)	Working Pressure at 23°C (Bar)	Burst Pressure (Bar)	Bending Ration (mm)	CODE 25m
4	2.5	0.75	20	60	25	896101
6	4	1	17	51	35	896102
8	6	1	14	42	65	896103
10	8	1	10	30	80	896104

Temperature Range:

From -20 °C to 150 °C

(Material Limit From -196 °C to 260 °C)

Pressure variation as function of the temperature:



Tolerance on external diameter:

From 4 mm to 8 mm : +/- 0,10 mm

10 mm : +/- 0,15 mm

7. SPIRAL TUBING - PU - POLYURETHANE WITH SWIVEL MALE TAPER

Coiled polyurethane tubing with R1/4 Swivel Coupling

- Very comfortable to use, highly appreciated in small spaces
- Excellent shape memory
- Equipped with pre-fitting R1/4 male swivel unions
- Suitable for all pneumatic applications
- Colour Blue
- Tolerance: ± 0.1 mm
- Hardness 98 SH A
- NFE 49101 standard
- Operating temperature - 40 ° C to + 60 ° C

External Diameter (mm)	Internal Diameter (mm)	Wall (mm)	Length (m)	Working Pressure at 23°C (Bar)	CODE
6	4	1	2	9	786245
6	4	1	4	9	786247
8	5	1.5	2	11	786246
8	5	1.5	4	11	786248
8	5	1.5	6	11	786249

8. SPIRAL TUBING - PA - POLYAMIDE

Coiled Polyamide tubing 17m long.
Temperature range: -40°C...+130°C.

External Diameter (mm)	Internal Diameter (mm)	Wall (mm)	Length (m)	Working Pressure at 23°C (Bar)	CODE
6	4	1	17	28	884762
8	6	1	17	20	884763

9. TUBE CUTTER FOR PNEUMATIC TUBE

Code	Description
786209	Tube cutter from 4 to 14 mm diameter
786211	Spare cutting blade 786209

Code	Description
884788	Tube cutter from 2 to 20 mm diameter
884789	Spare cutting blade 884788

10. CHEMICAL RESISTANCE AT 23°C

Fluid	PA	PU	BI-PO	PTFE	FEP
Acetaldehyde	G	G	G	G	N
Acetone	G	G	G	G	N
Acetylène	G	G	G	G	G
Acide acétique	G	G	G	G	G
Ammonia liquid	G	-	G	-	N
Amyl acetate	G	G	G	G	G
Aniline	S	-	-	G	G
Antifreeze	G	-	-	-	-
Benzol	S	-	-	-	G
Benzyl Alcohol	N	N	N	G	G
Bromine	N	-	N	-	G
Butane	G	-	G	G	G
Butanol	G	-	-	-	-
Carbon Tetrachloride	L	G	G	G	G
Chlorine	N	N	N	G	G
Chlorobenzol	N	-	-	G	G
Chloroform	N	N	N	G	G
Citric Acid	G	G	G	G	G
Concentrated Sulphuric Acide	N	N	N	G	G
Copper Sulfate	-	G	G	-	G
Crésol	L	N	N	G	G
Decaline	G	G	G	G	G
Eau	G	L	G	G	G
Engine Oil	G	G	G	G	G
Ethanol	G	-	-	-	-
Ether	G	-	-	-	-
Ethyl acetate	G	G	G	G	G
Ethyl Oxide	G	-	-	-	-
Formaldeyde	L	-	-	G	G
Formic Acid	L	N	N	G	G
Frigen F 12 Liquid	S	-	-	G	G
Gasoil	G	N	N	-	-
Glycerin	GS	G	G	G	G
Glycole	G	G	G	G	G
Grease	G	G	G	G	G
Grease food	G	G	G	G	G
Heptane	G	G	G	-	-
Hydraulic Oil	G	G	G	G	G
Hydrocloric Acid 1%	L	N	N	G	G
Hydrocloric Acid 10%	L	N	N	G	G
Hydrofluoridric gas	-	-	-	-	-
Hydrogen Peroxide 20%	L	-	-	G	G
Isoocthane	GS	-	-	-	G
Isopropanol	-	-	-	-	-
Kerosene	G	G	G	-	G
Lactic Acid	G	G	G	G	G
Magnesium Chloride 10%	G	G	G	G	G
Mercury	G	G	G	G	G

G Good Resistance S:Swelling Action L:Limited Resistance N:Poor resistance -:Non tested

Note: The information contained in this manual is the most accurate and faithful expression of our current knowledge. However, they are only given as an indication. It is essential that a check be made on the suitability of the product to its environment. This information does not imply a guarantee on our part.

Fluid	PA	PU	BI-PO	PTFE	FEP
Methanol	L	-	-	-	-
Methylene Chloride	G	G	G	G	G
Milk	G	G	G	G	G
Mineral oil	G	G	G	G	G
Naphta	G	-	-	G	-
Naphtalene	G	G	G	G	G
Nitric Acid	N	N	N	G	L
Nitrobenzole	L	-	-	-	-
Oils	G	-	-	G	G
Oleic Acid	G	G	G	G	G
Oleum	L	N	N	-	N
Oxalic Acid	G	G	G	G	G
Oxigen	G	G	G	G	G
Ozone	L	N	N	G	G
Parafin Oil	G	G	G	G	G
Perchloroethylene	N	G	G	G	G
Petrol	S	-	-	-	G
Petroleum	G	G	G	G	G
Phenol	N	-	-	G	G
Potassium Carbonate	G	-	G	G	G
Potassium Hidroxide 10%	GS	-	-	-	N
Potassium Hidroxide 50%	GS	-	-	-	N
Potassium Permanganate	N	N	N	-	G
Propane	G	G	G	G	G
Pyridine	N	N	N	-	N
Salicylic Acid	G	G	G	G	G
Sea water	G	L	G	G	G
Silicon Oil	G	G	G	G	G
Soap suds	G			G	G
Soda 10%	G	-	-	-	-
Soda 50%	G	-	-	-	-
Sodium Carbonate 10%	G	-	-	-	G
Sodium Carbonate 50%	L	-	-	-	G
Sodium Chloride	G	G	G	G	G
Sodium Chloride	G	-	-	-	G
Sodium Sulfate	-	-	-	-	-
Starch	G	-	G	G	G
Stearic Acid	G	G	G	G	G
Stearine	G	G	G	-	-
Styrene	G	-	-	G	-
Sulohur Chloride	L	-	-	G	G
Sulphuric Acide 10%	L	N	N	G	G
Tallow	G	-	-	-	G
Tartaric Acid	G	G	G	G	G
Toluole	G	G	G	-	G
Transformer Oil	G	G	G	G	G
Trichlorethane	L	N	N	-	G
Turpentine	G	G	G	G	G
Urea	G	G	G	G	G
Ureic Acid	G	G	G	G	G
Zinc Chloride (water based)	G	G	G	G	G

G Good Resistance S:Swelling Action L:Limited Resistance N:Poor resistance -:Non tested

Note: The information contained in this manual is the most accurate and faithful expression of our current knowledge. However, they are only given as an indication. It is essential that a check be made on the suitability of the product to its environment. This information does not imply a guarantee on our part.