

INDUSTRIAL HOSES - food

Characteristics

Hoses designed to transfer foodstuffs must be made from materials which are approved to come into contact with food. The internal layer of the hose is made from rubber compound, which is white, odour-free and taste-free. It may also be composed of PVC, polyethylene and other polymers that feature high level of purity, do not contain dangerous substances or those deteriorating health and organoleptic characteristics of products. Various hose types may be used to transfer such foodstuffs as drinking water, milk and dairy products, alcohol, fruit juices, beverages, fats, oils etc. These hoses are also used in pharmaceutical and cosmetics industry.

Hose fittings (check "INDUSTRIAL FITTINGS - fittings, connectors") should be mounted with the use of clips, worm drive clamps, safety clamps or ferrules (crimped). For food hoses stainless steel fittings (AISI 316) with appropriate surface roughness, should be used.

To find other hoses for these applications check the following groups: universal, PTFE, material handling (for dry foodstuffs), ducting and ventilation, chemical and TYGON®.

Legislation (European Union):

- Regulation No 1935/2004 (materials and articles intended to come into contact with food),
- Regulation No 2023/2006 (good manufacturing practice),
- Commission Directive 2002/72/EC and 2007/19/EC (plastic materials and articles intended to come into contact with foodstuffs - do not apply to rubber and silicone).

These documents lay down general requirements but also specify the following:

- labelling, which must include clear indication that materials or articles are intended to come into contact with food e.g. special application such as wine or milk transfer or have "a glass and a fork" symbol,
- list of approved substances,
- approved limits of quantity and migration of additional substances - constituents of plastic material to simulants which act like particular types of food (hydrophilic, acidic, alcoholic, lipophilic or dry food). Particularly Directive 2007/19/EC prohibits the use of phthalates as plasticizers in PVC hoses. For these reasons plastic hoses must be selected according to the type of foodstuff that is to be transferred.

American requirements (USA):

- FDA (Food and Drug Administration) - these requirements indicate materials and substances that may come into contact with food. For example, compliance with FDA 21 CFR 177.2600 concerns rubber hoses, FDA 21 CFR 177.1550 concerns PTFE hoses; compliance with FDA means declaration of a manufacturer, the requirements are recognized and acknowledged worldwide,
- NSF (NSF International) - compliance certificates for a complete product and its application; NSF-51 standard concerns materials,
- USDA (US Department of Agriculture) - requirements for meat and poultry industry,
- 3-A - additional requirements for dairy industry.

Requirements for pharmaceutical industry, biotechnology and medicine:

- USP (US Pharmacopoeia) - standards for materials used in pharmaceutical industry, biotechnology and medical devices. USP Class VI is the highest requirement, includes testing on animals but may not be sufficient for medical application,
- ISO 10993 - Biological evaluation of medical devices - procedures and requirements for medical devices, depending on their category (non-invasive, invasive, implantable devices).

Drinking water regulations:

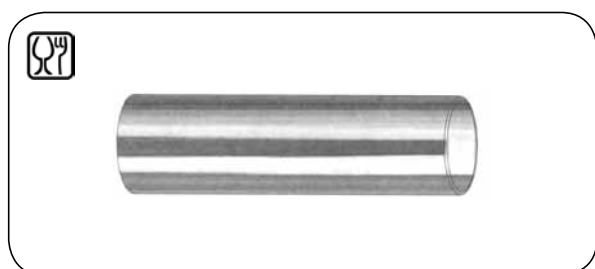
Drinking water and water supply installations (hoses included) usually must comply with special requirements in different countries. The most common requirements are: KTW and DVGW (Germany), WRAS (Great Britain), NSF-61 (USA), PZH in Poland which recognizes other UE certificates for drinking water.

INDUSTRIAL HOSES - food

Criteria for matching plastic hoses with different kind of foodstuff

The Regulation No 1935/2004 CE lays down the list of simulants which imitate the various food types. Meeting the requirements of the Regulation (positive results on migration tests of a particular hose material against an adequate simulant) means that the hose does not change the composition, chemical and organoleptic properties of the foodstuff it conveys.

symbol	simulant	type of foodstuff
A	distilled water	aqueous foodstuffs and non-alcoholic beverages
B	3% acetic acid	alcoholic beverages lower than 5%
C	15% ethanol	alcoholic beverages equal to or exceeding 5%
D	rectified olive oil	fats and oils
D (b)	50% ethanol	milk and dairy products



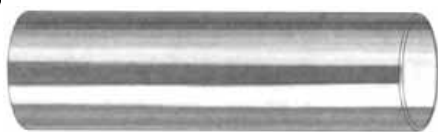
CRISTALLO

Material: Soft transparent PVC

General purpose, flexible hose without reinforcement, designed to transfer water, beer, wine, alcohol up to 28%, fruit juices, beverages and slightly aggressive chemicals. Not recommended for food substances containing fat, oil nor dairy products. Meets the requirements of the European Regulation 1935/2004 CE, UE 10/2011 (simulants A, B and C). Also used as a protective cover for pipes, wires etc.

code	I.D. [mm]	O.D. [mm]	wall thickness [mm]	weight [kg/m]	standard length [m]
ME-CRISTALLO-03X06	3	6	1.5	0.03	200
ME-CRISTALLO-04X06	4	6	1	0.02	200
ME-CRISTALLO-04X07	4	7	1.5	0.03	200
ME-CRISTALLO-05X08	5	8	1.5	0.04	200
ME-CRISTALLO-06X09	6	9	1.5	0.05	200
ME-CRISTALLO-07X10	7	10	1.5	0.05	100
ME-CRISTALLO-08X12	8	12	2	0.08	100
ME-CRISTALLO-10X14	10	14	2	0.10	100
ME-CRISTALLO-12X17	12	17	2.5	0.14	100
ME-CRISTALLO-13X19	13	19	3	0.19	100
ME-CRISTALLO-14X19	14	19	2.5	0.16	100
ME-CRISTALLO-16X22	16	22	3	0.22	100
ME-CRISTALLO-18X25	18	25	3.5	0.29	50
ME-CRISTALLO-20X27	20	27	3.5	0.32	50
ME-CRISTALLO-22X30	22	30	4	0.40	50
ME-CRISTALLO-25X34	25	34	4.5	0.50	50
ME-CRISTALLO-30X40	30	40	5	0.68	30
ME-CRISTALLO-35X45	35	45	5	0.76	30
ME-CRISTALLO-40X50	40	50	5	0.90	30
ME-CRISTALLO-50X60	50	60	5	1.20	30

INDUSTRIAL HOSES - food



TUBCLAIR AL

Material: Transparent PVC
Working temp.: From -15°C up to +60°C

General purpose, flexible hose without reinforcement, designed to transfer water, beer, wine, alcohol up to 28%, fruit juices, beverages and slightly aggressive chemicals. As hose material is phthalate-free, it is recommended for milk and dairy products as well as alcohol up to 50% and temperature up to +40°C. Not suitable for food substances containing fat and oil. Meets the requirements of the EU Regulations 1935/2004 and 10/2011 (simulants A, B, C and D1). Can be used as a protective cover for pipes, hose assemblies, etc.

code	I.D. [mm]	O.D. [mm]	weight [kg/m]	standard length [m]
TR-TUBCLAIR-03X06	3	6	0.026	50
TR-TUBCLAIR-04X06	4	6	0.019	50
TR-TUBCLAIR-04X07	4	7	0.032	50
TR-TUBCLAIR-05X08	5	8	0.037	50
TR-TUBCLAIR-06X09	6	9	0.043	50
TR-TUBCLAIR-07X10	7	10	0.050	50
TR-TUBCLAIR-08X12	8	12	0.077	50
TR-TUBCLAIR-09X13	9	13	0.082	50
TR-TUBCLAIR-10X14	10	14	0.090	50
TR-TUBCLAIR-12X16	12	16	0.105	50
TR-TUBCLAIR-13X17	13	17	0.112	50
TR-TUBCLAIR-14X18	14	18	0.120	50
TR-TUBCLAIR-15X20	15	20	0.164	50
TR-TUBCLAIR-16X22	16	22	0.215	50
TR-TUBCLAIR-18X23	18	23	0.195	50
TR-TUBCLAIR-19X24	19	24	0.198	50
TR-TUBCLAIR-20X26	20	26	0.252	50
TR-TUBCLAIR-22X28	22	28	0.275	50
TR-TUBCLAIR-25X32	25	32	0.380	50
TR-TUBCLAIR-27X33	27	33	0.330	50
TR-TUBCLAIR-30X38	30	38	0.500	50
TR-TUBCLAIR-32X42	32	42	0.705	25
TR-TUBCLAIR-35X43	35	43	0.573	25
TR-TUBCLAIR-38X48	38	48	0.789	25
TR-TUBCLAIR-40X50	40	50	0.826	25
TR-TUBCLAIR-50X60	50	60	1.045	25
TR-TUBCLAIR-60X70	60	70	1.200	25

INDUSTRIAL HOSES - food



SPIRE ACIER

Material: Transparent PVC

Reinforcement: Steel wire helix

Working temp.: From -15°C up to +60°C

Lightweight, very flexible, suction-delivery hose designed for water, fruit juices, beverages and slightly aggressive chemicals, etc. As hose material is phthalate-free, it is recommended for milk and dairy products as well as alcohol up to 50% and temperature up to +40°C. Not suitable for food substances containing fat and oil. Meets the requirements of the EU Regulations 1935/2004 and 10/2011 (simulants A, B, C and D1).

code	I.D. [mm]	O.D. [mm]	working press. 20°C [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
TR-SPIREACIER-008	8	13.4	11	0.9	16	0.15	50
TR-SPIREACIER-010	10	15.5	12	0.85	18	0.16	30
TR-SPIREACIER-012	12	17	11.5	0.85	23	0.19	30
TR-SPIREACIER-014	14	20	11	0.85	26	0.22	30
TR-SPIREACIER-016	16	22	10.5	0.85	30	0.25	30
TR-SPIREACIER-018	18	25	10	0.85	32	0.27	30
TR-SPIREACIER-020	20	27	10	0.85	34	0.33	30
TR-SPIREACIER-025	25	33	9.5	0.8	42	0.51	30
TR-SPIREACIER-030	30	38	9	0.8	50	0.61	30
TR-SPIREACIER-032	32	40	9	0.8	53	0.64	30
TR-SPIREACIER-035	35	44	8	0.8	58	0.73	30
TR-SPIREACIER-038	38	46	7.5	0.8	63	0.78	30
TR-SPIREACIER-040	40	50	7.5	0.8	66	0.92	30
TR-SPIREACIER-045	45	55	6.5	0.8	74	1.12	30
TR-SPIREACIER-050	50	61	6	0.8	82	1.26	30
TR-SPIREACIER-060	60	72	5.5	0.7	130	1.70	30
TR-SPIREACIER-070	70	84	5	0.6	180	2.04	30
TR-SPIREACIER-076	76	90	4	0.6	200	2.23	30
TR-SPIREACIER-080	80	94	3.5	0.6	172	2.43	20
TR-SPIREACIER-090	90	105	3	0.6	192	2.80	20
TR-SPIREACIER-102	102	119	3	0.6	300	3.54	20
TR-SPIREACIER-105	105	122	3	0.6	383	3.73	20
TR-SPIREACIER-110	110	127	2.5	0.6	320	3.83	20
TR-SPIREACIER-120	120	136	2.2	0.5	340	4.14	20
TR-SPIREACIER-150	150	170	2	0.5	450	6.30	20

INDUSTRIAL HOSES - food



TRICOCLAIR® AL

Material: Transparent PVC
Reinforcement: Polyester reinforcement
Working temp.: From -15°C up to +60°C

Lightweight, very flexible delivery hose designed to transfer water, fruit juices, beverages, slightly aggressive chemicals, etc. As the material of the hose is phthalate-free it is recommended for milk and dairy products as well as alcohol up to 50% and temperature up to +40°C. Not suitable for food substances containing fat and oil. Meets the requirements of the European Regulation UE 1935/2004 i 10/2011 (simulants A, B, C and D1).

code	I.D. [mm]	O.D. [mm]	working pressure 20°C [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
TR-TRICOCLAIR-04	4	8	27	11	0.05	25
TR-TRICOCLAIR-06	6	12	20	18	0.10	25
TR-TRICOCLAIR-07	7	13	20	23	0.12	25
TR-TRICOCLAIR-08	8	14	20	27	0.13	25
TR-TRICOCLAIR-09	9	15	20	33	0.14	25
TR-TRICOCLAIR-10	10	16	20	37	0.15	25
TR-TRICOCLAIR-12	12	19	20	45	0.21	25
TR-TRICOCLAIR-13	13	20	20	50.5	0.23	25
TR-TRICOCLAIR-15	15	23	20	60	0.29	25
TR-TRICOCLAIR-19	19	27	20	78.5	0.35	25
TR-TRICOCLAIR-20	20	28	20	85	0.36	25
TR-TRICOCLAIR-25	25	34	16	109.5	0.51	25
TR-TRICOCLAIR-30	30	41	13	138.5	0.74	25
TR-TRICOCLAIR-32	32	42	12	160	0.71	25
TR-TRICOCLAIR-38	38	48	12	210	0.81	25
TR-TRICOCLAIR-40	40	52	10	230	1.08	25
TR-TRICOCLAIR-50	50	64	9	300	1.48	25

INDUSTRIAL HOSES - food



SPIRABEL® SNTS

Material: Transparent PVC
Reinforcement: Rigid PVC wire helix
Working temp.: From -15°C up to +60°C

Lightweight, very flexible, suction-delivery hose designed for water, fruit juices, beverages and slightly aggressive chemicals, etc. As hose material is phthalate-free, it is recommended for milk and dairy products as well as alcohol up to 50% and temperature up to +40°C. Not suitable for food substances containing fat and oil. Meets the requirements of the EU Regulations 1935/2004 and 10/2011 (simulants A, B, C and D1).

code	I.D. [mm]	O.D. [mm]	working press. 20°C [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
TR-SPIRABEL-020	20	25.2	7	0.8	60	0.25	25
TR-SPIRABEL-025	25	30.4	7	0.8	75	0.31	25
TR-SPIRABEL-030	30	35.4	6	0.8	90	0.37	25
TR-SPIRABEL-032	32	37.6	6	0.8	95	0.40	25
TR-SPIRABEL-035	35	41	6	0.8	105	0.48	25
TR-SPIRABEL-038	38	44	6	0.8	115	0.51	25
TR-SPIRABEL-040	40	46	6	0.8	120	0.53	25
TR-SPIRABEL-045	45	51.2	5	0.8	135	0.62	25
TR-SPIRABEL-050	50	56.6	5	0.8	150	0.75	25
TR-SPIRABEL-055	55	61.6	5	0.8	165	0.80	25
TR-SPIRABEL-060	60	66.6	5	0.8	180	0.89	25
TR-SPIRABEL-063	63	69.6	5	0.8	190	0.97	25
TR-SPIRABEL-070	70	76.8	4	0.7	210	1.06	25
TR-SPIRABEL-075	75	4.8	3	0.7	300	1.20	25
TR-SPIRABEL-080	80	5.3	3	0.7	320	1.35	25
TR-SPIRABEL-090	90	6.1	3	0.7	360	1.65	25
TR-SPIRABEL-100	100	6.1	3	0.7	500	1.97	25
TR-SPIRABEL-110	110	6.1	3	0.6	550	2.31	25
TR-SPIRABEL-120	120	6.3	3	0.6	600	2.54	25
TR-SPIRABEL-151	151	6.3	3	0.6	755	4.20	25

INDUSTRIAL HOSES - food



LUISIANA

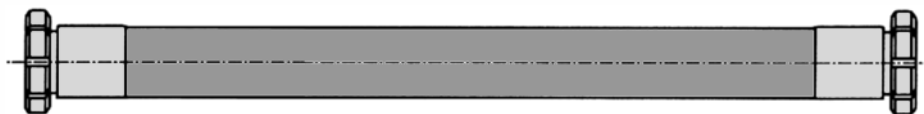
Material: Transparent PVC
Reinforcement: Rigid PVC wire helix
Working temp.: From -5°C up to +60°C

Lightweight, flexible suction-delivery hose designed to transfer water, beer, wine, alcohol up to 28%, fruit juices, beverages and slightly aggressive chemicals. Not recommended for food substances containing fat, oil nor for dairy products. Meets the requirements of the European Regulation 1935/2004 CE, UE 10/2011 (simulants A, B and C). Version with antistatic wire also available.

code	I.D. [mm]	wall thickness [mm]	working press. 20°C [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
ME-LUISIANA-020	20	3.1	8	0.7	75	0.28	50
ME-LUISIANA-025	25	3.3	8	0.7	120	0.33	50
ME-LUISIANA-030	30	3.5	7	0.7	140	0.42	50
ME-LUISIANA-032	32	3.6	7	0.7	150	0.46	50
ME-LUISIANA-035	35	3.4	7	0.7	160	0.50	50
ME-LUISIANA-038	38	3.7	6.5	0.7	170	0.55	50
ME-LUISIANA-040	40	3.8	6.5	0.7	180	0.61	50
ME-LUISIANA-045	45	3.7	6.5	0.7	200	0.67	50
ME-LUISIANA-050	50	4.1	6	0.7	220	0.81	50
ME-LUISIANA-060	60	4.5	5	0.7	270	0.97	50
ME-LUISIANA-063	63	4	5	0.7	290	1.04	50
ME-LUISIANA-070	70	4.6	4	0.7	320	1.20	50
ME-LUISIANA-075	75	5.2	4	0.7	350	1.38	50
ME-LUISIANA-080	80	5.3	4	0.7	360	1.56	25
ME-LUISIANA-090	90	5.2	4	0.7	430	1.80	25
ME-LUISIANA-100	100	6	4	0.7	480	2.16	25
ME-LUISIANA-102	102	6.2	4	0.7	480	2.20	25
ME-LUISIANA-110	110	6	4	0.6	530	2.40	25
ME-LUISIANA-120	120	6.2	3	0.6	680	2.85	25
ME-LUISIANA-125	125	6.3	3	0.6	730	3.13	25
ME-LUISIANA-150	150	7.2	3	0.5	810	4.25	25
ME-LUISIANA-200	200	9.1	2	0.5	900	6.40	10

PROVIDING COMPLETE HOSE SOLUTIONS !!!

**We can supply complete hose assemblies.
 You just need to provide hose diameter, complete length
 and type of fittings.**



INDUSTRIAL HOSES - food



ALIFLEX

Material: Transparent PVC
Reinforcement: Rigid PVC wire helix
Working temp.: From -20°C up to +50°C

Lightweight, flexible, suction-delivery hose designed to transfer water, beer, wine, alcohol up to 28%, fruit juices, beverages and slightly aggressive chemicals. Not recommended for food substances containing fat, oil nor for dairy products. Meets the requirements of the European Directive UE 1935/2004 i 10/2011 (simulants A, B and C).

code	I.D. [mm]	wall thickness [mm]	working press. 20°C [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
FT-ALIFLEX-013	13	2.4	7	0.6	90	0.14	25
FT-ALIFLEX-020	20	2.7	7	0.6	110	0.20	25
FT-ALIFLEX-025	25	2.8	7	0.6	140	0.28	25
FT-ALIFLEX-030	30	3	7	0.6	175	0.35	25
FT-ALIFLEX-032	32	3	7	0.6	180	0.37	25
FT-ALIFLEX-035	35	3.1	7	0.6	190	0.43	25
FT-ALIFLEX-038	38	3.4	6	0.6	210	0.47	25
FT-ALIFLEX-040	40	3.5	6	0.6	220	0.51	25
FT-ALIFLEX-045	45	3.5	6	0.6	250	0.57	25
FT-ALIFLEX-051	51	3.8	6	0.6	280	0.73	25
FT-ALIFLEX-055	55	4	6	0.6	300	0.80	25
FT-ALIFLEX-060	60	4.1	6	0.6	350	0.90	25
FT-ALIFLEX-063	63	4.2	5	0.6	370	0.97	25
FT-ALIFLEX-070	70	4.4	5	0.6	420	1.13	25
FT-ALIFLEX-076	76	4.5	5	0.6	500	1.27	25
FT-ALIFLEX-080	80	4.6	4	0.6	550	1.45	25
FT-ALIFLEX-090	90	5	4	0.5	600	1.70	25
FT-ALIFLEX-100	100	5.2	4	0.5	650	1.95	25
FT-ALIFLEX-110	110	5.4	3	0.5	700	2.10	25
FT-ALIFLEX-120	120	5.4	3	0.5	730	2.60	25
FT-ALIFLEX-125	125	5.6	3	0.5	750	2.90	25
FT-ALIFLEX-150	150	6.4	2	0.5	850	3.90	25

INDUSTRIAL HOSES - food



NEVADA PHF

Material: Transparent PVC
Reinforcement: Rigid PVC wire helix
Working temp.: From -5°C up to +60°C

Lightweight, flexible suction-delivery hose designed to transfer water, beer, wine, alcohol up to 28%, fruit juices, beverages and slightly aggressive chemicals. Not recommended for food substances containing fat, oil nor for dairy products. Meets the requirements of the European Regulation 1935/2004 CE, UE 10/2011 (simulants A, B and C).

code	I.D. [mm]	wall thickness [mm]	working press. 20°C [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
ME-NEVADA-PHF-025	25	3.8	8	0.9	175	0.40	50
ME-NEVADA-PHF-030	30	3.8	8	0.9	210	0.50	50
ME-NEVADA-PHF-032	32	4	8	0.9	220	0.52	50
ME-NEVADA-PHF-035	35	4	8	0.9	240	0.60	50
ME-NEVADA-PHF-038	38	4.2	8	0.9	250	0.70	50
ME-NEVADA-PHF-040	40	4.5	8	0.9	260	0.75	50
ME-NEVADA-PHF-045	45	4.5	8	0.9	290	0.90	50
ME-NEVADA-PHF-050	50	4.5	8	0.9	325	1.00	50
ME-NEVADA-PHF-060	60	5.5	7	0.9	380	1.45	50
ME-NEVADA-PHF-063	63	6	7	0.9	400	1.67	50
ME-NEVADA-PHF-070	70	6	6	0.9	450	1.80	50
ME-NEVADA-PHF-075	75	6	6	0.9	490	1.90	50
ME-NEVADA-PHF-080	80	6.5	5	0.9	530	2.20	50
ME-NEVADA-PHF-090	90	7	5	0.9	600	2.48	30
ME-NEVADA-PHF-100	100	8	4	0.9	700	3.30	30
ME-NEVADA-PHF-102	102	8	4	0.9	700	3.30	30
ME-NEVADA-PHF-110	110	8	4	0.9	800	3.45	30
ME-NEVADA-PHF-120	120	8	4	0.9	900	3.60	30
ME-NEVADA-PHF-125	125	8.5	4	0.9	980	4.20	30
ME-NEVADA-PHF-150	150	10	3	0.9	1350	6.30	30

INDUSTRIAL HOSES - food



ARMORVIN PRESS

Material: Transparent PVC
Reinforcement: Steel wire helix
Working temp.: From -5°C up to +65°C

Robust, very flexible suction-delivery hose designed to transfer air, water, slightly aggressive chemicals, beer, wine, alcohol up to 28%, fruit juices, beverages, drinking water, other liquid and semi-liquid food substances. Not recommended for food substances containing fat, oil nor for dairy products. Meets the requirements of the European Regulation 1935/2004 CE, UE 10/2011 (simulants A, B and C).

code	I.D. [mm]	wall thickness [mm]	working press. 20°C [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
ME-ARMPRE-05	5	2.5	20	0.9	20	0.08	60
ME-ARMPRE-06	6	2.5	18	0.9	23	0.10	60
ME-ARMPRE-08	8	2.7	16	0.9	32	0.14	60
ME-ARMPRE-10	10	3	15	0.9	40	0.18	60
ME-ARMPRE-12	12	3	15	0.9	45	0.21	60
ME-ARMPRE-14	14	3.2	12	0.9	56	0.26	60
ME-ARMPRE-16	16	3.5	12	0.9	63	0.29	60
ME-ARMPRE-18	18	3.5	10	0.9	70	0.34	60
ME-ARMPRE-20	20	3.5	10	0.9	80	0.37	60



ARMORVIN HNA

Material: Transparent PVC
Reinforcement: Steel wire helix
Working temp.: From -5°C up to +65°C

Very flexible suction-delivery hose designed to transfer air, water, beer, wine, alcohol up to 28%, fruit juices, beverages and slightly aggressive chemicals. Not recommended for food substances containing fat, oil nor for dairy products. Meets the requirements of the European Regulation 1935/2004 CE, UE 10/2011 (simulants A, B and C).

code	I.D. [mm]	wall thickness [mm]	working press. 20°C [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
ME-ARMHNA-010	10	3	7	0.85	20	0.16	60
ME-ARMHNA-012	12	3	7	0.85	25	0.18	60
ME-ARMHNA-014	14	3.2	6	0.85	30	0.20	60
ME-ARMHNA-016	16	3.2	6	0.85	35	0.23	60
ME-ARMHNA-018	18	3.2	6	0.85	40	0.28	60
ME-ARMHNA-020	20	3.4	5	0.85	50	0.34	60
ME-ARMHNA-022	22	3.6	5	0.85	55	0.36	60
ME-ARMHNA-025	25	4	5	0.85	60	0.51	60
ME-ARMHNA-030	30	4.2	4.5	0.85	70	0.60	60
ME-ARMHNA-032	32	4.2	4.5	0.85	75	0.65	60
ME-ARMHNA-035	35	4.5	4	0.85	80	0.73	60
ME-ARMHNA-038	38	4.5	4	0.85	90	0.80	30
ME-ARMHNA-040	40	4.7	3	0.85	95	0.87	30
ME-ARMHNA-045	45	5	3	0.8	110	1.10	30
ME-ARMHNA-050	50	5	3	0.8	125	1.20	30
ME-ARMHNA-060	60	6	2.5	0.8	140	1.80	30
ME-ARMHNA-075	75	6.8	2	0.7	200	2.50	30
ME-ARMHNA-080	80	7	2	0.7	220	2.70	30
ME-ARMHNA-100	100	7	2	0.7	300	3.25	30

INDUSTRIAL HOSES - food



ARMORVIN HNP

Material: Light green, transparent PVC

Reinforcement: Steel wire helix

Working temp.: From -5°C up to +65°C

Very flexible suction-delivery hose designed to transfer air, water, beer, wine, alcohol up to 28%, fruit juices, beverages and slightly aggressive chemicals. Not recommended for food substances containing fat, oil nor for dairy products. Meets the requirements of the European Regulation 1935/2004 CE, UE 10/2011 (simulants A, B and C). It is suitable for vacuum transfer of loose substances, granulated products and many other slightly abrasive materials.

code	I.D. [mm]	wall thickness [mm]	working press. 20°C [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
ME-ARMHNP-010	10	3	8	0.95	20	0.16	60
ME-ARMHNP-012	12	3	8	0.95	25	0.18	60
ME-ARMHNP-014	14	3	8	0.95	30	0.20	60
ME-ARMHNP-016	16	3	8	0.95	35	0.23	60
ME-ARMHNP-018	18	3.2	7	0.95	40	0.28	60
ME-ARMHNP-020	20	3.5	7	0.95	50	0.34	60
ME-ARMHNP-022	22	3.5	6	0.95	55	0.36	60
ME-ARMHNP-025	25	4	6	0.95	60	0.51	60
ME-ARMHNP-030	30	4.7	5	0.95	70	0.68	60
ME-ARMHNP-032	32	4.7	5	0.95	75	0.73	60
ME-ARMHNP-035	35	4.5	5	0.95	80	0.73	60
ME-ARMHNP-038	38	5.5	5	0.95	90	0.95	30
ME-ARMHNP-040	40	6.5	5	0.95	100	1.22	30
ME-ARMHNP-045	45	6.5	5	0.95	110	1.40	30
ME-ARMHNP-050	50	7	5	0.9	125	1.60	30
ME-ARMHNP-060	60	7	5	0.9	140	2.05	30
ME-ARMHNP-063	63	7	4	0.9	150	2.25	30
ME-ARMHNP-070	70	8	4	0.9	180	2.60	30
ME-ARMHNP-075	75	8	4	0.9	200	2.85	30
ME-ARMHNP-080	80	8	3	0.9	220	3.15	30
ME-ARMHNP-090	90	8.5	3	0.9	260	3.75	30
ME-ARMHNP-100	100	9	3	0.9	300	4.40	30
ME-ARMHNP-105	105	8.5	3	0.9	310	3.90	20
ME-ARMHNP-110	110	9	3	0.9	320	4.65	20
ME-ARMHNP-120	120	9	2	0.9	340	5.20	20
ME-ARMHNP-125	125	9.5	2	0.9	350	5.40	20
ME-ARMHNP-150	150	9.5	2	0.9	450	7.20	20

INDUSTRIAL HOSES - food

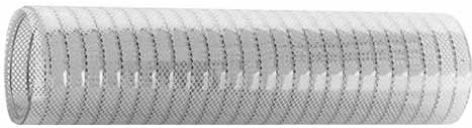


SPIRABEL® RS

Material: Transparent PVC
Reinforcement: Rigid PVC wire helix
Working temp.: From -25°C up to +60°C

Lightweight, very flexible, suction-delivery hose designed for water, fruit juices, beverages and slightly aggressive chemicals, etc. As hose material is phthalate-free, it is recommended for milk and dairy products as well as alcohol up to 50% and temperature up to +40°C. Not suitable for food substances containing fat and oil. Meets the requirements of the EU Regulations 1935/2004 and 10/2011 (simulants A, B, C and D1).

code	I.D. [mm]	O.D. [mm]	working press. 20°C [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
TR-SPIRABEL-RS-040	40	48.6	7	0.9	144	0.70	25
TR-SPIRABEL-RS-050	50	59.4	7	0.9	175	1.02	25
TR-SPIRABEL-RS-060	60	69.6	6	0.9	210	1.26	25
TR-SPIRABEL-RS-063	63	73.6	6	0.9	220	1.35	25
TR-SPIRABEL-RS-070	70	81	6	0.9	245	1.60	25
TR-SPIRABEL-RS-080	80	91.4	5	0.9	280	1.80	25
TR-SPIRABEL-RS-100	100	114	5	0.9	350	2.62	25
TR-SPIRABEL-RS-120	120	136.4	5	0.8	420	3.50	25



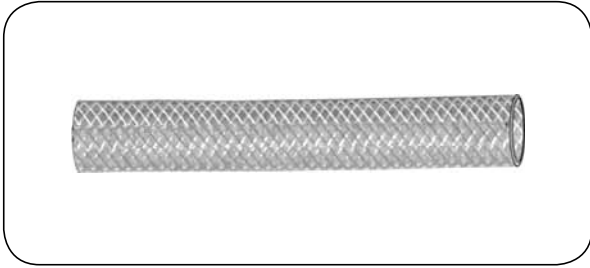
PHARMASTEEL PRESS

Material: Transparent TPE
Reinforcement: AISI 302 steel wire helix, polyester braid
Working temp.: From -30°C up to +125°C

Very flexible, suction-delivery hose designed to transfer air, water, slightly aggressive chemicals, fruit juices, milk and dairy products, beer, wine, alcohol up to 96%. Resistant to fats and oils. Used in cosmetic and pharmaceutical industry to transfer soap, cream, perfume, etc. Meets the requirements of EU Regulation 10/2011 and 2023/2006 (simulants A, B, C, D1, D2) for food industry. Complies with FDA (Title 21 CFR 177.2600 „e”) and USP CLASS VI pharmaceutical standard. Resistant to hydrolysis, impairs bacterial growth. Hose cleaning, disinfection or sterilisation strictly according to the handling manual. It is not recommended to clean using SIP method as it severely shortens the hose life.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IP-PHARMASTEELPR-013	13	23.5	17	0.98	65	0.31	60
IP-PHARMASTEELPR-020	20	32	13	0.98	100	0.49	60
IP-PHARMASTEELPR-025	25	37.5	12	0.98	125	0.64	60
IP-PHARMASTEELPR-032	32	44	11	0.88	160	0.75	60
IP-PHARMASTEELPR-038	38	51	10	0.88	190	0.94	30
IP-PHARMASTEELPR-050	50.5	65	10	0.78	250	1.48	30
IP-PHARMASTEELPR-063	63	79	10	0.78	315	1.95	30
IP-PHARMASTEELPR-076	76	91	9	0.69	380	2.11	30
IP-PHARMASTEELPR-102	102	118	7	0.69	510	3.02	20

INDUSTRIAL HOSES - food

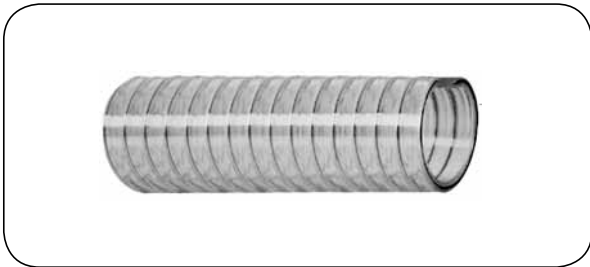


PHARMAPRESS

Material: Transparent TPE
Reinforcement: Polyester braid
Working temp.: From -30°C up to +125°C

Very flexible, suction-delivery hose designed to transfer air, water, slightly aggressive chemicals, fruit juices, milk and dairy products, beer, wine, alcohol up to 96%. Resistant to fats and oils. Used in cosmetic and pharmaceutical industry to transfer soap, cream, perfume, etc. Meets the requirements of EU Regulation 10/2011 and 2023/2006 (simulants A, B, C, D1, D2) for food industry. Complies with FDA (Title 21 CFR 177.2600 „e”) and USP CLASS VI pharmaceutical standard. Resistant to hydrolysis, impairs bacterial growth. Hose cleaning, disinfection or sterilisation strictly according to the handling manual. It is not recommended to clean using SIP method as it severely shortens the hose life.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IP-PHARMAPRESS-06	6.4	12.6	12	40	0.08	100
IP-PHARMAPRESS-08	7.9	14.6	15	60	0.11	100
IP-PHARMAPRESS-10	9.5	16.3	14	70	0.13	100
IP-PHARMAPRESS-13	12.7	20.1	10	90	0.18	100
IP-PHARMAPRESS-16	15.9	24.4	9	110	0.25	50
IP-PHARMAPRESS-19	19	27.9	9	130	0.30	50
IP-PHARMAPRESS-25	25.4	34.5	7	180	0.39	50



PHARMASTEEL

Material: Transparent TPE
Reinforcement: AISI 302 steel wire helix
Working temp.: From -30°C up to +125°C

Very flexible, suction-delivery hose designed to transfer air, water, slightly aggressive chemicals, fruit juices, milk and dairy products, beer, wine, alcohol up to 96%. Resistant to fats and oils. Used in cosmetic and pharmaceutical industry to transfer soap, cream, perfume, etc. Meets the requirements of EU Regulation 10/2011 and 2023/2006 (simulants A, B, C, D1, D2) for food industry. Complies with FDA (Title 21 CFR 177.2600 „e”) and USP CLASS VI pharmaceutical standard. Resistant to hydrolysis, impairs bacterial growth. Hose cleaning, disinfection or sterilisation strictly according to the handling manual. It is not recommended to clean using SIP method as it severely shortens the hose life.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IP-PHARMASTEEL-13	13	19	2.7	0.83	60	0.17	60
IP-PHARMASTEEL-16	16	22.4	2.3	0.83	70	0.22	60
IP-PHARMASTEEL-19	19	26	2.3	0.83	90	0.27	60
IP-PHARMASTEEL-25	25	33	1.5	0.83	110	0.40	60
IP-PHARMASTEEL-32	32	40.4	1.5	0.83	140	0.52	60
IP-PHARMASTEEL-38	38	47	1.2	0.83	170	0.64	30
IP-PHARMASTEEL-51	51	61	1	0.78	230	1.05	30

INDUSTRIAL HOSES - food



VACUPRESS CRISTAL

Internal layer: Transparent PVC
Reinforcement: Polyester braid, steel wire helix
External layer: Transparent PVC
Working temp.: From -5°C up to +65°C

Heavy duty, flexible, suction-delivery hose resistant to abrasion (according to ISO 4649: 90 mm³). Designed to transfer water, beer, wine, alcohol to 28%, fruit juices, beverages and slightly aggressive chemicals. Not recommended for food substances containing fat, oil nor for dairy products. Meets the requirements of the European Regulation 1935/2004 CE, UE 10/2011 (simulants A, B and C).

code	I.D. [mm]	O.D. [mm]	working press. 20°C [bar]	bursting press. 20°C [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
ME-VACUPRCR-019	19	28	20	60	0.9	80	0.45	60
ME-VACUPRCR-025	25	35.5	20	60	0.9	90	0.64	60
ME-VACUPRCR-030	30	40.5	16	48	0.9	105	0.77	60
ME-VACUPRCR-032	32	42.5	16	48	0.9	110	0.80	60
ME-VACUPRCR-035	35	48	14	42	0.9	125	1.10	60
ME-VACUPRCR-038	38	51	14	42	0.9	135	1.15	30
ME-VACUPRCR-040	40	53	14	42	0.9	140	1.20	30
ME-VACUPRCR-045	45	58	14	42	0.9	155	1.40	30
ME-VACUPRCR-050	50	63	14	42	0.9	170	1.60	30
ME-VACUPRCR-060	60	74	12	36	0.9	200	1.98	30
ME-VACUPRCR-063	63	77	12	36	0.9	210	2.05	30
ME-VACUPRCR-076	76	92	12	36	0.9	250	2.80	30
ME-VACUPRCR-080	80	96	10	30	0.9	300	2.85	30
ME-VACUPRCR-090	90	106.5	10	30	0.9	350	3.30	30
ME-VACUPRCR-102	102	119	10	30	0.9	400	3.90	30



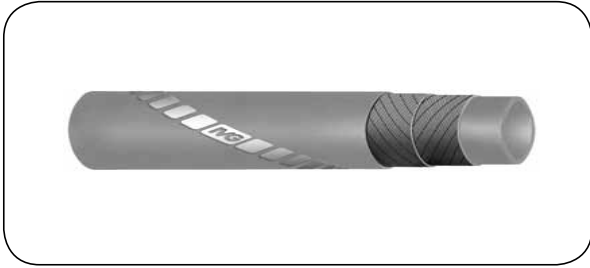
PROFILINE AQUA PLUS

Internal layer: XLPE polyethylene
Reinforcement: Synthetic braid
External layer: Blue PE polyethylene
Working temp.: From -15°C up to +50°C

Very flexible delivery hose designed to transfer food substances. As the material of the hose is phthalate-free it is recommended for milk and dairy products as well as alcohol. Meets the requirements of the European Regulation 1935/2004 CE and 2007/19/CE (simulants A, B, C and D(b)). Widely used in food industry, drinking water applications and chemical industry.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
TR-PROFIAQUAPLUS-10	10	15	20	35	0.09	50
TR-PROFIAQUAPLUS-13	13	20	20	70	0.17	50
TR-PROFIAQUAPLUS-19	19	27	20	107.5	0.26	50
TR-PROFIAQUAPLUS-25	25	34.5	20	147.5	0.42	50

INDUSTRIAL HOSES - food



AQUABLUE®

Internal layer: White plastomer
Reinforcement: Synthetic braid
External layer: Blue synthetic rubber
Working temp.: From -30°C up to +60°C

Delivery hose designed to transfer drinking water in food industry and other applications (household, camping, etc.). Completely odour-free, taste-free, food grade material of the internal hose layer allows to maintain organoleptic water properties unaltered. Compliant with FDA 21CFR 177.1520, BfR III, D. M. 174. Approved by WRAS according to BS 6920 and AZ/NS 4020. Meets the requirements of KTW-C, tested according to DVGWW270. Cleaning with steam (+130°C) for 15 minutes.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	weight [kg/m]	standard length [m]
IV-AQUABLUE-13	13	21	20	60	0.26	60
IV-AQUABLUE-19	19	28	20	60	0.42	60
IV-AQUABLUE-25	25	34	20	60	0.52	60



FOODSTAR / SD

Internal layer: White NBR/PVC rubber
Reinforcement: Synthetic braid, steel wire helix
External layer: Blue EPDM rubber
Working temp.: From -25°C up to +100°C

Suction-delivery hose designed to transfer foodstuffs which demand application of completely odour-free and taste-free rubber. Internal layer compliant with FDA 21 CFR 177.2600, EU Regulations EC 1935/04 and 1012/06. Highly recommended for milk and dairy products transfer. Cleaning for a few minutes with: steam at max. +110°C, 1% peracetic acid at max. +50°C, 2% phosphoric acid at max. +50°C, 5% sodium hydroxide at +50°C. Vacuum 0.9 bar.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
SO-FOODSTAR-SD-025	25	35	10	30	125	0.74	60
SO-FOODSTAR-SD-032	32	42	10	30	160	0.91	60
SO-FOODSTAR-SD-038	38	49	10	30	190	1.11	60
SO-FOODSTAR-SD-040	40	51	10	30	200	1.15	60
SO-FOODSTAR-SD-045	45	56	10	30	225	1.28	60
SO-FOODSTAR-SD-051	51	62	10	30	255	1.44	60
SO-FOODSTAR-SD-063	63	76	10	30	381	2.21	60
SO-FOODSTAR-SD-076	76	89	10	30	456	2.76	60
SO-FOODSTAR-SD-080	80	93	10	30	480	2.89	60
SO-FOODSTAR-SD-102	102	116.5	10	30	612	4.25	60

INDUSTRIAL HOSES - food

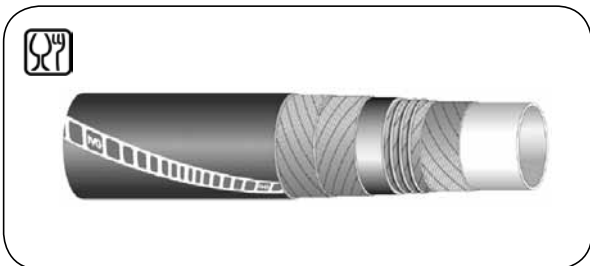


SCOTLAND NR®

Internal layer: White NR rubber
Reinforcement: Synthetic braid
External layer: Blue EPDM rubber
Working temp.: From -25°C up to +80°C

Delivery hose designed to transfer foodstuffs which demand application of totally odour-free and taste-free rubber. Highly recommended for milk and dairy products transfer. Very flexible, lightweight construction makes it easy to handle. Internal layer is compliant with FDA 21 CFR 177.2600, BfR XXI cat.2, D. M. 21/03/73, EC 1935/04 and 2023/06. Cleaning for a few minutes with: steam (+110°C), 1% peracetic acid (+30°C), 2% phosphoric acid (+30°C), 5% sodium hydroxide (+30°C).

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	weight [kg/m]	standard length [m]
IV-SCOT-NR-019	19	27	6	18	0.35	60
IV-SCOT-NR-025	25	34	6	18	0.53	60
IV-SCOT-NR-032	32	42	6	18	0.75	60
IV-SCOT-NR-038	38	48	6	18	0.87	60
IV-SCOT-NR-051	51	61	6	18	1.14	60
IV-SCOT-NR-063	63.5	75.5	6	18	1.66	60
IV-SCOT-NR-076	76	88	6	18	1.99	60



SCOTLAND / LL NR®

Internal layer: White NR rubber
Reinforcement: Synthetic braid, steel wire helix
External layer: Blue EPDM rubber
Working temp.: From -25°C up to +80°C

Suction-delivery hose designed to transfer foodstuffs which demand application of entirely odour-free and taste-free rubber. Highly recommended for milk and dairy products transfer. Very flexible, lightweight construction makes it easy to handle. Internal layer compliant with FDA 21 CFR 177.2600, BfR XXI cat.2, D. M. 21/03/73, EC 1935/04 and 2023/06. Cleaning for a few minutes with: steam (+110°C), 1% peracetic acid (+30°C), 2% phosphoric acid (+30°C), 5% sodium hydroxide (+30°C). Vacuum 0.9 bar.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IV-SCOT-LL-NR-019	19	30	6	18	85	0.69	60
IV-SCOT-LL-NR-025	25	36	6	18	112	0.88	60
IV-SCOT-LL-NR-032	32	43	6	18	144	1.07	60
IV-SCOT-LL-NR-038	38	49	6	18	171	1.24	60
IV-SCOT-LL-NR-040	40	51	6	18	180	1.30	60
IV-SCOT-LL-NR-051	51	62	6	18	255	1.69	60
IV-SCOT-LL-NR-063	63.5	76.5	6	18	315	2.40	60
IV-SCOT-LL-NR-076	76	88	6	18	380	2.71	60
IV-SCOT-LL-NR-080	80	94	6	18	440	3.23	60

INDUSTRIAL HOSES - food



MASTERMILK / SD

Internal layer: White NBR rubber
Reinforcement: Synthetic braid, steel wire helix
External layer: Blue synthetic rubber
Working temp.: From -20°C up to +90°C (for steam cleaning up to +130°C max. 30 min.)

Suction-delivery hose designed to transfer fatty and non-fatty foodstuffs which demand application of totally odour-free and taste-free rubber. Meets the requirements of FDA, BfR, M.D. 21/03/73 and RAL. Compliant with EC 1935/2004 and EC 2023/2006. Free of plasticizers, phthalates and materials of animal origin (according to EC 1907/2006 REACH). Internal layer is resistant to cleaning agents and cleaning processes used in the food industry. External layer is resistant to brief contact with animal fats and vegetable oils. Not suitable for suction or discharge at pulsating pressure. Vacuum 0.9 bar.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
MT-MASTERMILK-SD-019	19	30	10	30	50	0.60	40
MT-MASTERMILK-SD-025	25	36	10	30	75	0.74	40
MT-MASTERMILK-SD-032	32	43	10	30	80	0.90	40
MT-MASTERMILK-SD-038	38	50	10	30	110	1.20	40
MT-MASTERMILK-SD-040	40	52	10	30	120	1.25	40
MT-MASTERMILK-SD-045	45	57	10	30	130	1.50	40
MT-MASTERMILK-SD-050	50	62	10	30	150	1.55	40
MT-MASTERMILK-SD-065	65	78	10	30	190	2.20	40
MT-MASTERMILK-SD-075	75	89	10	30	220	2.55	40
MT-MASTERMILK-SD-100	100	115	10	30	500	4.25	40



EVOLUTION / CRUSH-PROOF

Internal layer: White NR/NBR rubber
Reinforcement: Synthetic braid, plastic wire helix
External layer: Blue synthetic rubber
Working temp.: From -30°C up to +85°C (for steam cleaning up to +120°C max. 30 min.)

Suction-delivery hose designed to transfer milk, dairy products and foodstuffs which demand application of entirely odour-free and taste-free rubber. Internal layer meets the requirements of FDA, BfR, M.D. 21/03/73 and RAL. Complies with EC 1935/2004 and EC 2023/2006. Free of plasticizers, phthalates and materials of animal origin (according to EC 1907/2006 REACH). The internal layer is resistant to cleaning agents and cleaning processes used in the food industry. Non-oxidising cleaning agents are recommended. Due to the special „CRUSH PROOF“ construction, the hose regains its initial shape after it is e.g. accidentally run over by a forklift. Because of the plastic wire helix, the hose is significantly lighter and much easier to handle. Particularly recommended for applications which require high flexibility and small bending radius. Remains flexible even at very low temperatures. Vacuum 0.7 bar.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
MT-EVOLUTION-CP-038	38	51	6	18	120	1.10	40
MT-EVOLUTION-CP-051	51	64	6	18	150	1.39	40
MT-EVOLUTION-CP-063	63.5	77.5	6	18	190	1.85	40
MT-EVOLUTION-CP-076	76	91	6	18	230	2.25	40

INDUSTRIAL HOSES - food

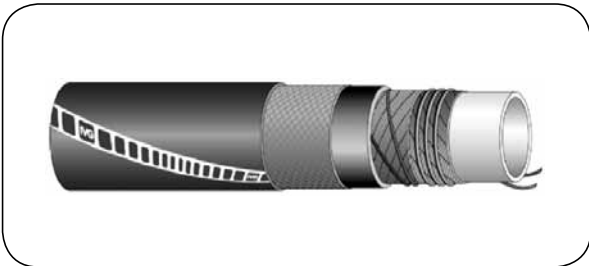


IMPERIA / SPL / 10

Internal layer: White NBR rubber
Reinforcement: Synthetic braid, steel wire helix
External layer: Blue CR rubber
Working temp.: From -20°C up to +90°C

Suction-delivery hose designed to transfer milk, dairy products and fatty foodstuffs in discharge applications. Particularly recommended for heavy-duty service conditions. Meets the requirements of FDA, BfR, M.D. 21/03/73 and RAL. Compliant with EC 1935/2004 and EC 2023/2006. Free of plasticizers, phthalates and materials of animal origin (according to EC 1907/2006 REACH). Internal layer is resistant to cleaning agents and cleaning processes used in the food industry. External layer is resistant to brief contact with animal fats and vegetable oils. Vacuum 0.9 bar.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
MT-IMPERIA-SPL10-019	19	31	10	30	80	0.69	40
MT-IMPERIA-SPL10-025	25	37	10	30	120	0.85	40
MT-IMPERIA-SPL10-032	32	44	10	30	150	1.04	40
MT-IMPERIA-SPL10-038	38	52	10	30	200	1.56	40
MT-IMPERIA-SPL10-040	40	54	10	30	200	1.62	40
MT-IMPERIA-SPL10-045	45	59	10	30	225	1.78	40
MT-IMPERIA-SPL10-050	50	64	10	30	250	1.95	40
MT-IMPERIA-SPL10-065	65	81	10	30	360	2.93	40
MT-IMPERIA-SPL10-075	75	93	10	30	450	3.82	40
MT-IMPERIA-SPL10-100	100	118	10	30	600	5.20	40



SUPERTOP / LL FOOD UPE®

Internal layer: White UPE polyethylene
Reinforcement: Synthetic braid, steel wire helix
External layer: Blue EPDM rubber
Working temp.: From -30°C up to +100°C

Suction-delivery hose designed to transfer liquid chemicals. Widely used in food, chemical and petrochemical industry. The hose has copper wire to ensure electrical conductivity. External layer is resistant to weather conditions and abrasion. Meets the requirements of FDA 21 CFR 177.1520. Complies with EN 12115:11. Cleaning for a few minutes with: steam (+130°C), 2% nitric acid (+60°C), 2% peracetic acid (+60°C), 2% phosphoric acid (+60°C), 5% sodium hydroxide (+60°C). Vacuum 0.9 bar.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IV-SUPUPE-LL-F-019	19	31.5	16	64	152	0.78	60
IV-SUPUPE-LL-F-025	25	37	16	64	200	0.98	60
IV-SUPUPE-LL-F-038	38	53	16	64	304	1.61	60
IV-SUPUPE-LL-F-051	51	66.5	16	64	408	2.20	60
IV-SUPUPE-LL-F-063	63.5	79	16	64	508	2.73	60
IV-SUPUPE-LL-F-076	76	91	16	64	608	3.22	60

INDUSTRIAL HOSES - food



SCOTLAND BE®

Internal layer: White butyl rubber (IIR)
Reinforcement: Synthetic braid
External layer: Red butyl rubber (IIR)
Working temp.: From -40°C up to +120°C

Delivery hose designed to transfer wine, beer, fruit juices and other foodstuffs (with no fat content), which demand application of odour-free and taste-free rubber. Widely used in the distillery industry to transfer alcohol up to 96%. The hose has a copper wire to ensure electrical conductivity between the hose ends. Internal layer complies with FDA 21 CFR 177.2600, BfR XXI cat.2, D. M. 21/03/73, EC 1935/04 and EC 2023/06. Cleaning for a few minutes with: steam (+130°C), 2% nitric acid (+60°C), 2% peracetic acid (+60°C), 2% phosphoric acid (+60°C), 5% sodium hydroxide (+60°C).

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	weight [kg/m]	standard length [m]
IV-SCOT-BE-019	19	29	10	30	0.48	60
IV-SCOT-BE-025	25	38	10	30	0.81	60
IV-SCOT-BE-032	32	48	10	30	1.26	60
IV-SCOT-BE-038	38	56	10	30	1.67	60
IV-SCOT-BE-051	51	69	10	30	2.15	60
IV-SCOT-BE-063	63.5	83.5	10	30	2.88	60
IV-SCOT-BE-076	76	96	10	30	3.27	60
IV-SCOT-BE-102	102	124	10	30	4.96	60



SCOTLAND / LL BE®

Internal layer: White butyl rubber (IIR)
Reinforcement: Synthetic braid, steel wire helix
External layer: Red butyl rubber (IIR)
Working temp.: From -40°C up to +120°C

Suction-delivery hose designed to transfer wine, beer, fruit juices and other foodstuffs (with no fat content), which demand application of odour-free and taste-free rubber. Widely used in the distillery industry to transfer alcohol up to 96%. The hose has a copper wire to ensure electrical conductivity between the hose ends. Internal layer complies with FDA 21 CFR 177.2600, BfR XXI cat.2, D. M. 21/03/73, EC 1935/04 and EC 2023/06. Cleaning for a few minutes with: steam (+130°C), 2% nitric acid (+60°C), 2% peracetic acid (+60°C), 2% phosphoric acid (+60°C), 5% sodium hydroxide (+60°C). Vacuum 0.9 bar.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IV-SCOT-LL-BE-019	19	32	10	30	85	0.73	60
IV-SCOT-LL-BE-025	25	38	10	30	112	0.91	60
IV-SCOT-LL-BE-032	32	46	10	30	144	1.19	60
IV-SCOT-LL-BE-038	38	52	10	30	171	1.45	60
IV-SCOT-LL-BE-051	51	65	10	30	250	1.91	60
IV-SCOT-LL-BE-063	63.5	80	10	30	317	2.83	60
IV-SCOT-LL-BE-076	76	93	10	30	380	3.35	60
IV-SCOT-LL-BE-102	102	120	10	30	561	4.89	60

INDUSTRIAL HOSES - food



PANAMA®

Internal layer: White NBR/PVC rubber
Reinforcement: Synthetic braid
External layer: Blue CR rubber
Working temp.: From -15°C up to +90°C

Delivery hose intended to convey foodstuffs which demand application of entirely odour-free and taste-free rubber. Highly recommended to transfer oils and fats. Internal layer complies with FDA 21 CFR 177.2600, D. M. 21/03/73, CE 1935/04 and CE 2023/06. External layer is resistant to fat and ageing. Cleaning for a few minutes with: steam (+110°C), 2% peracetic acid (+50°C), 2% phosphoric acid (+50°C), 5% sodium hydroxide (+50°C).

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	weight [kg/m]	standard length [m]
IV-PANAMA-019	19	31	10	30	0.67	60
IV-PANAMA-025	25	39	10	30	1.01	60
IV-PANAMA-032	32	46	10	30	1.23	60
IV-PANAMA-038	38	53	10	30	1.94	60
IV-PANAMA-051	51	67	10	30	2.09	60
IV-PANAMA-063	63.5	83.5	10	30	3.39	60
IV-PANAMA-076	76	96	10	30	3.98	60
IV-PANAMA-102	102	124	10	30	5.57	60



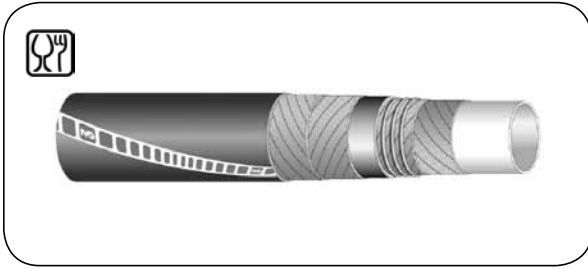
ACAPULCO®

Internal layer: White NBR/PVC rubber
Reinforcement: Synthetic braid, steel wire helix
External layer: Blue CR rubber
Working temp.: From -15°C up to +90°C

Suction-delivery hose intended to convey foodstuffs which demand application of entirely odour-free and taste-free rubber. Highly recommended to transfer oils and fats. Internal layer complies with FDA 21 CFR 177.2600, D. M. 21/03/73, CE 1935/04 and CE 2023/06. External layer is resistant to fat and ageing. Cleaning for a few minutes with: steam (+110°C), 2% peracetic acid (+50°C), 2% phosphoric acid (+50°C), 5% sodium hydroxide (+50°C). Vacuum 0.9 bar.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IV-ACAPULCO-019	19	31	10	30	85	0.79	60
IV-ACAPULCO-025	25	37	10	30	112	0.97	60
IV-ACAPULCO-032	32	44	10	30	144	1.18	60
IV-ACAPULCO-038	38	52	10	30	171	1.63	60
IV-ACAPULCO-051	51	67	10	30	255	2.44	60
IV-ACAPULCO-063	63.5	79.5	10	30	317	3.05	60
IV-ACAPULCO-076	76	94	10	30	380	4.10	60
IV-ACAPULCO-102	102	122	10	30	561	6.22	60

INDUSTRIAL HOSES - food



FOODFLEX®

Internal layer: White natural rubber
Reinforcement: Synthetic braid, steel wire helix
External layer: Blue EPDM rubber
Working temp.: From -25°C up to +80°C

Very flexible suction-delivery hose intended to convey wine, beer, fruit juices. Internal layer complies with FDA 21 CFR 177.2600, BfR XXI cat. 2, D. M. 21/03/73 as well as CE 1935/04 and CE 2023/06. Particularly recommended for milk and dairy products transfer. Suitable for a hose reel due to excellent flexibility. Cleaning for a few minutes with: steam (+110°C), 1% peracetic acid (+30°C), 1% phosphoric acid (+30°C), 5% sodium hydroxide (+30°C).

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IV-FOODFLEX-025	25	36	6	18	0.7	50	0.79	60
IV-FOODFLEX-032	32	43	6	18	0.7	64	1.01	60
IV-FOODFLEX-038	38	49.5	6	18	0.6	76	1.27	60
IV-FOODFLEX-040	40	51.5	6	18	0.6	80	1.33	60
IV-FOODFLEX-045	45	56.5	6	18	0.6	90	1.47	60
IV-FOODFLEX-051	51	62.5	6	18	0.6	102	1.64	60
IV-FOODFLEX-063	63.5	76.5	6	18	0.5	127	2.28	60
IV-FOODFLEX-076	76	89.5	6	18	0.5	152	2.79	60
IV-FOODFLEX-080	80	93	6	18	0.5	160	2.84	60
IV-FOODFLEX-102	102	116	6	18	0.4	204	3.61	60



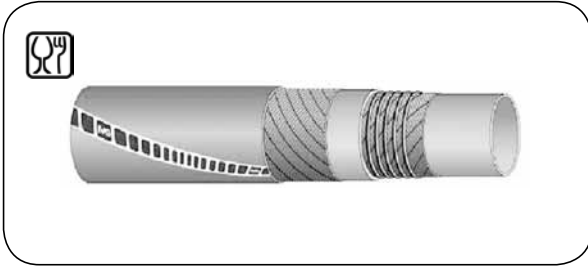
PHARMAFLON

Internal layer: White, mirrorlike MFA polymer
Reinforcement: Synthetic braid, steel wire helix
External layer: White EPDM rubber
Working temp.: From -50°C up to +170°C

Suction-delivery hose intended to transfer pharmaceuticals, cosmetics, foodstuffs and chemicals. The hose complies with CE 1935/2004 and CE 2023/2006. Free of plasticizers, phthalates and materials of animal origin. Internal layer is compliant with FDA, USP Class VI, D.M. 21/03/73 and the requirements of (EU) 10/2011. External layer meets the requirements of FDA standards. The hose has two copper wires to provide electrical conductivity between the hose ends. It also features excellent thermal and mechanical properties. Steam cleaning is acceptable for max. 30 minutes at +130°C.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	max. length [m]
MT-PHARMA-013	13	25	10	0.9	60	0.55	20
MT-PHARMA-019	19	31	10	0.9	90	0.72	20
MT-PHARMA-025	25	37	10	0.9	140	0.89	20
MT-PHARMA-032	32	45	10	0.9	200	1.20	20
MT-PHARMA-038	38	51	10	0.9	250	1.47	20
MT-PHARMA-051	51	65.5	10	0.9	300	2.08	20
MT-PHARMA-063	63.5	79.5	10	0.9	380	3.00	20
MT-PHARMA-076	76	92	10	0.9	500	3.48	20
MT-PHARMA-100	100	116	10	0.9	550	4.90	20

INDUSTRIAL HOSES - food



POTABLE HARDWALL®

Internal layer: White butyl rubber IIR
Reinforcement: Synthetic braid, steel wire helix
External layer: Orange synthetic rubber
Working temp.: From -40°C up to +100°C

Suction-delivery hose designed to transfer drinking water from ships to oil-rigs. External layer resistant to ozone, sea water and weather conditions. Meets FDA 21 CFR 177.2600 requirements for water-based products, BfR XXI cat.2 for food stuffs and the European Regulations CE 1935/04 and CE 2023/06. Vacuum 0.9 bar.

code	I.D. [mm]	O.D. [mm]	working pressure [bar]	bursting pressure [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IV-POTABLE-HW-051	51	69	17	51	280	2.46	60
IV-POTABLE-HW-076	76	94.5	17	51	418	3.66	60
IV-POTABLE-HW-102	102	125	17	51	561	5.49	60
IV-POTABLE-HW-127	127	154	17	51	698	9.75	60



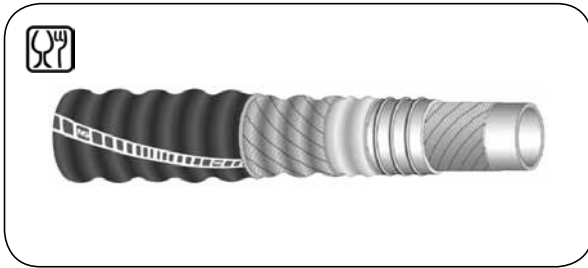
VINO FLEX EASY

Internal layer: White IIR rubber
Reinforcement: Synthetic braid, steel wire helix
External layer: Red thermoplastic compound
Working temp.: From -40°C up to +120°C

Suction-delivery hose intended to convey wine, beer, fruit juices, fruit juices, alcohol up to 96% and other foodstuffs (with no fat content). Its internal layer is compliant with FDA 21 CFR 177.2600, BfR XXI cat. 2, D.M. 21/03/73, CE 1935/04 and CE 2023/06. Odour-free and taste-free internal layer. External corrugations ensure exceptional flexibility and low coefficient of friction of the external layer and thus facilitate hose handling. Cleaning for a few minutes with: steam (+130°C), 2% nitric acid (+60°C), 2% peracetic acid (+60°C), 2% phosphoric acid (+60°C), 5% sodium hydroxide (+60°C). The hose is designed for assembly with EASY SHELL clamps.

code	I.D. [mm]	working pressure [bar]	bursting pressure [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IV-VINO FLEX-E-025	25	10	30	0.6	75	0.66	60
IV-VINO FLEX-E-032	32	10	30	0.6	96	0.86	60
IV-VINO FLEX-E-038	38	10	30	0.6	114	1.13	60
IV-VINO FLEX-E-040	40	10	30	0.6	120	1.18	60
IV-VINO FLEX-E-051	51	10	30	0.6	153	1.45	60
IV-VINO FLEX-E-060	60	10	30	0.6	180	1.68	60
IV-VINO FLEX-E-063	63.5	10	30	0.6	191	1.77	60
IV-VINO FLEX-E-076	76	10	30	0.6	228	2.19	60
IV-VINO FLEX-E-080	80	10	30	0.6	240	2.30	60
IV-VINO FLEX-E-100	100	10	30	0.6	350	2.88	60

INDUSTRIAL HOSES - food



MILLENNIUM EASY

Internal layer: White synthetic rubber
Reinforcement: Synthetic braid, steel wire helix
External layer: Blue synthetic rubber
Working temp.: From -30°C up to +100°C

Suction-delivery hose intended to convey such foodstuffs as: olive oil, wine, beer, fruit juices, milk, fats and alcohol up to 96%. Internal layer is compliant with FDA 21 CFR 177.2600, BfR XXI cat. 2, D.M. 21/03/73, CE 1935/04 and CE 2023/06. Totally phthalate free and PAH FREE (polycyclic aromatic hydrocarbon - approved by CERISIE laboratory No 045/12 and 241/13). Cleaning for a few minutes with: steam (+130°C), 2% nitric acid (+50°C), 2% peracetic acid (+50°C), 2% phosphoric acid (+50°C), 5% sodium hydroxide (+50°C). The hose is designed for assembly with EASY SHELL clamps.

code	I.D. [mm]	working pressure [bar]	bursting pressure [bar]	vacuum [bar]	bending radius [mm]	weight [kg/m]	standard length [m]
IV-MILLENNIUM-E-025	25	10	30	0.6	75	0.66	60
IV-MILLENNIUM-E-032	32	10	30	0.6	95	0.86	60
IV-MILLENNIUM-E-038	38	10	30	0.6	115	1.06	60
IV-MILLENNIUM-E-040	40	10	30	0.6	120	1.18	60
IV-MILLENNIUM-E-051	51	10	30	0.6	150	1.44	60
IV-MILLENNIUM-E-060	60	10	30	0.6	180	1.70	60
IV-MILLENNIUM-E-063	63.5	10	30	0.6	195	1.78	60
IV-MILLENNIUM-E-076	76	10	30	0.6	225	2.21	60
IV-MILLENNIUM-E-080	80	10	30	0.6	240	2.42	60
IV-MILLENNIUM-E-102	102	10	30	0.6	350	2.97	60



EASY SHELL

Easy shell clamps are made of extremely durable plastic material. The clamps allow to assemble hygienic couplings to the externally corrugated hoses of EASY series (e.g. VINO FLEX EASY). The clamp has internal corrugations precisely adjusted to match the corrugations of EASY series hoses. Hygienic couplings (DIN, SMS and other) with standard hose tail for a safety clamp can also be assembled with easy shell clamps.

code	DN [mm]	working pressure [bar]	weight [kg]
IV-EASYSHELL-025	25	10	0.14
IV-EASYSHELL-032	32	10	0.22
IV-EASYSHELL-038	38	10	0.24
IV-EASYSHELL-040	40	10	0.38
IV-EASYSHELL-050	50	10	0.48
IV-EASYSHELL-063	63.5	10	0.50
IV-EASYSHELL-076	76	10	0.56
IV-EASYSHELL-080	80	10	0.72
IV-EASYSHELL-100	100	10	1.05