

## PVC food hoses



### TUBCLAIR AL

**Unreinforced PVC hose for food substances** Hose

**material:** Transparent PVC  
**Operating temp:** -15°C to +60°C  
**Operating pressure:** low - up to several bar (temperature dependent)

A versatile, highly flexible, non-reinforced hose designed for the non-pressurised (or very low pressure) transfer of water, beer, wine, spirits, juices, beverages. The absence of phthalates in the material allows the hose to be used for the transfer of milk and milk products and alcohols with a volume concentration of up to 50% and a temperature of up to +40°C. Not recommended for oils and fatty foods. Also suitable for liquids in general industrial applications, light chemicals (acids, bases), solids (powders) and as a covering for pipes, hoses, cables, etc.

#### Standards and requirements:

Food industry, contact with food: compliant with European requirements 1935/2004/EC and 10/2011/EU (simulants A, B, C and D1), 2023/2006/EC (GMP).



index	internal diameter d [mm].	Outer diameter D [mm].	wall thickness s t [mm].	mass [kg/m]	Roll length [m]
TR-TUBCLAIR-03X06	3	6	1,5	0,026	50
TR-TUBCLAIR-04X06	4	6	1	0,019	50
TR-TUBCLAIR-04X07	4	7	1,5	0,032	50
TR-TUBCLAIR-05X08	5	8	1,5	0,037	50
TR-TUBCLAIR-06X09	6	9	1,5	0,043	50
TR-TUBCLAIR-07X10	7	10	1,5	0,050	50
TR-TUBCLAIR-08X12	8	12	2	0,077	50
TR-TUBCLAIR-09X13	9	13	2	0,082	50
TR-TUBCLAIR-10X14	10	14	2	0,090	50
TR-TUBCLAIR-12X16	12	17	2,5	0,105	50
TR-TUBCLAIR-13X17	13	17	2	0,112	50
TR-TUBCLAIR-14X18	14	18	2	0,120	50
TR-TUBCLAIR-15X20	15	20	2,5	0,164	50
TR-TUBCLAIR-16X22	16	22	3	0,215	50
TR-TUBCLAIR-18X23	18	23	2,5	0,195	50
TR-TUBCLAIR-19X24	19	24	2,5	0,198	50
TR-TUBCLAIR-19X26	19	26	3,5	0,290	50
TR-TUBCLAIR-20X26	20	26	3	0,252	50
TR-TUBCLAIR-22X28	22	28	3	0,275	50
TR-TUBCLAIR-25X32	25	32	3,5	0,380	50
TR-TUBCLAIR-27X33	27	33	3	0,330	50
TR-TUBCLAIR-30X38	30	38	4	0,500	50
TR-TUBCLAIR-32X40	32	40	4	0,545	25
TR-TUBCLAIR-32X42	32	42	5	0,705	25
TR-TUBCLAIR-35X43	35	43	4	0,573	25
TR-TUBCLAIR-38X48	38	48	5	0,789	25
TR-TUBCLAIR-40X50	40	50	5	0,826	25
TR-TUBCLAIR-50X60	50	60	5	1,045	25
TR-TUBCLAIR-60X70	60	70	5	1,200	25

typical PVC hose, 20°C		
d [mm]	D [mm].	Working pressure * [bar]
3	6	3,60
4	6	2,31
4	7	3,05
5	8	2,63
6	9	2,31
7	10	2,05
8	12	2,31
9	13	2,11
10	14	1,95
12	17	2,01
13	17	1,57
14	18	1,48
15	20	1,68
16	22	1,85
18	23	1,44
19	24	1,38
19	26	1,82
20	26	1,54
22	28	1,42
25	32	1,45
27	33	1,19
30	38	1,39
32	40	1,32
32	42	1,59
35	43	1,22
38	48	1,38
40	50	1,32
50	60	1,08
60	70	0,92

Note: indexes highlighted in colour - most commonly used

\* - Indicative value of the recommended operating pressure at a safety factor of 5:1.

For unreinforced hoses, manufacturers usually do not specify the working pressure or burst pressure due to the less clear-cut nature of hose bursting, preceded by permanent deformation. The values given were calculated using Lamé's formula: working pressure =  $(S/n) \times (D^2 - d^2) / (D^2 + d^2)$ , assuming  $S = 3 \text{ MPa}$  (material stress at permanent deformation) and  $n=5$  (safety factor). These are indicative values for a typical plasticised PVC hose. The use of a hose for a specific operating pressure should be preceded by a test under operating conditions.

Temperature dependence of burst pressure and working pressure for typical PVC hoses	temperature	20°C	30°C	40°C	50°C	60°C	70°C
	pressure	100%	74%	55%	40%	30%	22%