

Hose systems for food industry applications

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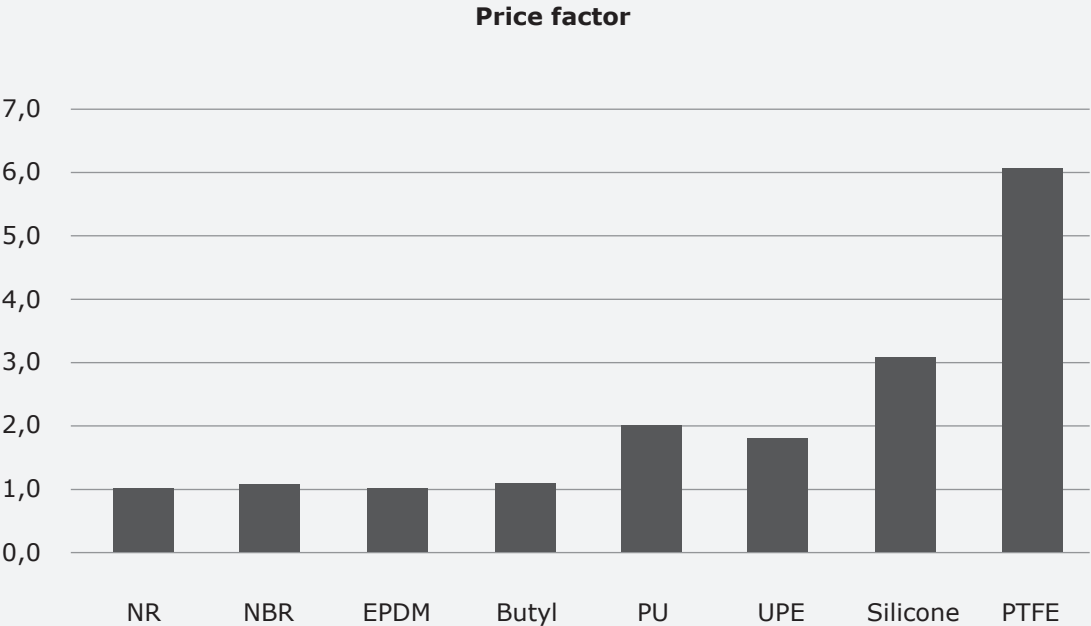
1. The material spectrum

A wide variety of hose materials are used for food applications. In some areas, the range of material combinations available has increased to such an extent that it is almost impossible to select the right product without suitable consultation. The following table offers a simplified overview of which material should be used when.


Material	Application	P _{max} [bar]	T _{max} [°C]	Resistancy index ^{*1}
NR	Optimised for use with milk products with a high level of handling required: approx. 15% lighter and approx. 15% more flexibility than NBR.	10	80	50
NBR	The standard for foods containing fat (sunflower oil, milk products, etc.).	10	95	55
EPDM	For food applications with high temperatures . For cleaning processes with hot water/steam in particular.	10	120	65
Butyl	For drinks such as beer and wine as it is tasteless and odourless .	10	120	65
PU	For powdery and powdered foods . Abrasion-proof and anti-static.	5	100	80
UPE	When high resistancy is required due to high alcohol content and/or aggressive cleaning processes.	16	120	90
Silicone	When high resistancy is required due to high alcohol content and/or aggressive cleaning processes. More flexible than UPE or PTFE.	10	200	90
PTFE	When the highest resistancy is required.	16	150	100































* 1: The resistancy index is a rough indicator of the range of chemical resistance of the material.
Materials with a low index can be used for the media mentioned but only for other media to a limited extent.

The raw material prices for the individual materials vary greatly.
The following price factors can be used as a rough guide for price comparisons.



2. Possible models

S&D: suction/pressure hose; D: pressure hose
 Cover colour

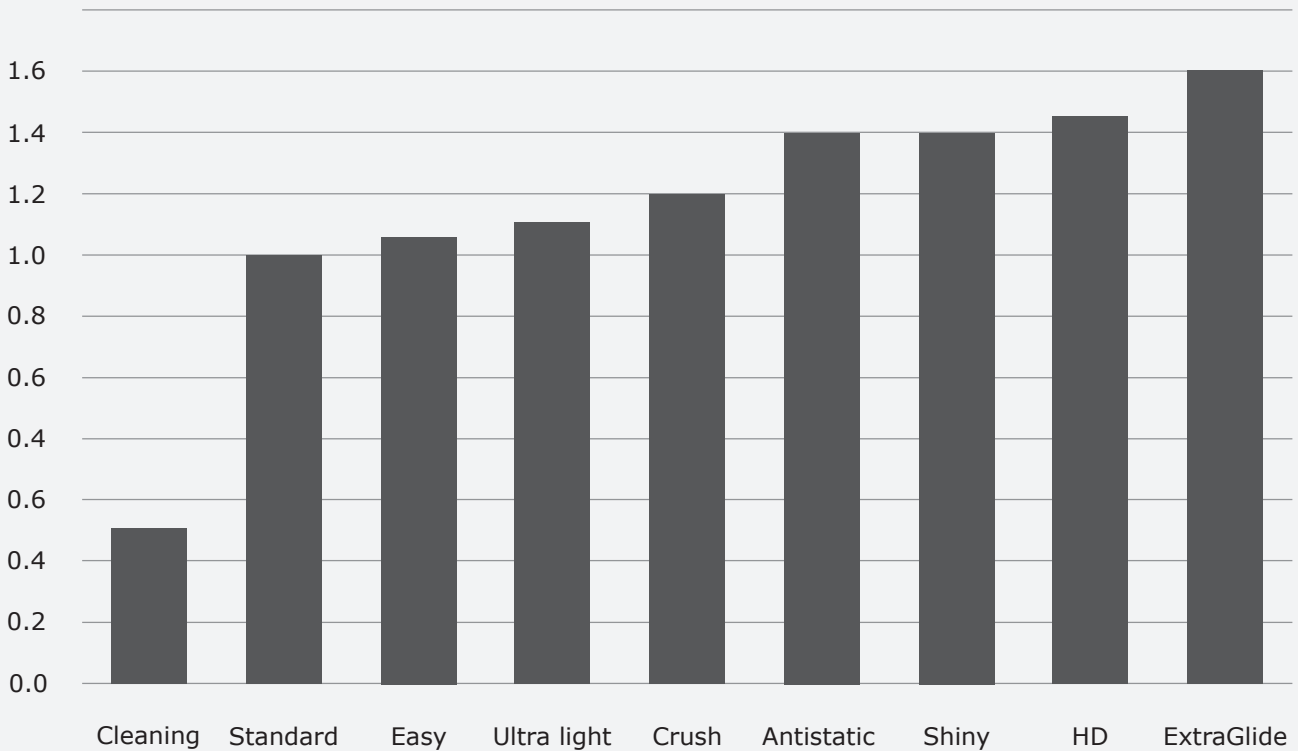
	Standard	EASY	Crush	Anti-static	HD	Cleaning	Ultra light	Shiny	Extra-Glide
NR	Food NR  S&D						Food NR Ultra light  S&D		
NBR	Food NBR  S&D	Food NBR EASY  S&D	Food NBR Crush  S&D	Food NBR Antistatic  D			Food NBR Ultra light  S&D		Food NBR ExtraGlide  S&D
EPDM	Food EPDM  S&D	Food EPDM EASY  S&D	Food EPDM Crush  S&D		Food EPDM HD  S&D	Food EPDM Cleaning  D		Food EPDM Shiny  S&D	Food EPDM ExtraGlide  S&D
Butyl	Food Butyl  S&D	Food Butyl EASY  S&D	Food Butyl Crush  S&D		Food Butyl HD  S&D				Food Butyl ExtraGlide  S&D
UPE	48HW BioPharm*  S&D			45HW*  S&D					
Silicone	SIL200  S&D				SIL300  S&D				
PTFE	50HW BioPharm  S&D	Hygenic Pure Flex  S&D		50HW  S&D				SIL300-PTFE  S&D	
PU	Food PU  S&D								Food PU ExtraGlide  S&D

* 1: 48HW BioPharm: white liner with black conductivity stripe
 45HW BioPharm: OHM/T hose

Models

- Crush:** An internal thermoplastic spiral reduces the risk of permanent hose deformation in case the hose is run over, for example
- Antistatic:** With a conductive (black) cover
- HD:** High-pressure model up to 16 bar (breweries, cleaning)
- Cleaning:** For higher cleaning temperatures (steam/hot water)
- Ultra light:** Weight-optimised and more flexible at reduced pressure
- Shiny:** Shiny cover for easier cleaning and reduced floor friction
- ExtraGlide:** Shiny cover and corrugated PU exterior spiral for optimum cleaning and minimal floor friction

Model price factor



3. The construction

The standard design is based on white liners ^{*1}, has various synthetic textile inserts and a stainless-steel or galvanised steel wire spiral^{*2}.

The standard design applies for NR, NBR, Butyl, EPDM, and PU hoses have a textile pattern; silicone and PTFE are smooth as default. The cover colours range from white to blue, red, green and black.

The Easy model has a corrugated exterior surface; the Shiny model has a smooth, shiny surface.

The ExtraGlide model has an external corrugated and green PU spiral. The surface is also smooth/shiny.

The Crush, Antistatic, HD, Cleaning and Ultra light versions resemble the appearance of the standard version.

Standard



Easy/Shiny



ExtraGlide



We offer all hoses in individual length as pre-assembled and fully tested hoses with connectors/couplings according to customer requirements.

* 1: PU: sand-coloured liner; 45HW: black liner; 48 HW: white liner with black guide strip

* 2: SIL200, Food PU ExtraGlide, Food EPDM Cleaning