



## ALBIN PUMP® PROLONGED LIFE HOSE OFFERINGS

<b>NR</b> <small>CAREFUL WITH THE OILS</small>	Natural Rubber (NR) can be considered a do-all material used in diverse applications; combines superior mechanical properties and provides good chemical compatibility (especially with water-based products and weak bases, acids, glycols, and ketones). Not recommended with hydrocarbons and oxidants in general.									75°C (167° F)
	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<b>NBR</b> <small>ALH NBR - AT</small>	Nitrile Butadiene Rubber (NBR) is generally very good with natural and synthetic oils, petroleum-based fluids (non-aromatic). Mechanical properties are good, ranked behind NR.									75°C (167° F)
	✓		✓	✓	✓				✓	
<b>NBR FDA</b> <small>CAREFUL WITH THE OILS</small>	Food Grade NBR has the same characteristics as standard NBR, but is suitable for contact with food									75°C (167° F)
	✓					✓			✓	
<b>EPDM</b> <small>EPDM ATTENTION</small>	Ethylene Propylene Diene Monomer (EPDM) rubber has a very wide chemical compatibility for both acids and caustic applications, but is not recommended with hydrocarbons (aromatic or chlorinated) or oils (natural and synthetic). Mechanical properties are comparable to NBR.									85°C (185° F)
	✓	✓	✓	✓	✓		✓	✓	✓	
<b>HYPALON® /CSM</b> <small>CAREFUL WITH THE OILS</small>	HYPALON®/CSM has an excellent chemical compatibility to seawater and brine, strong acids, and bases. Hypalon® is also strongly recommended with oxidants, hypochlorite, and alcohols. It is not recommended with hydrocarbons and aromatic solvents. Mechanical properties are very good just slightly less than Natural Rubber.									75°C (167° F)
	✓		✓		✓				✓	
<b>VITON® /FKM</b> <small>CAREFUL WITH THE OILS</small>	VITON®/FKM, Viton® is a fluorinated synthetic rubber, it has the widest chemical compatibility among with the "rubber family". Can be used with strong acids and bases, aromatic solvents, hydrocarbons, and synthetic and natural oils. Viton® has a good resistance to high temperatures, but is not recommended to be used with abrasive or heavy duty applications due to its mean resistance to abrasion and average mechanical properties.									75°C (167° F)
	✓		✓		✓				✓	
<b>NR FDA</b> <small>NR FDA 1800FC</small>	Food Grade Natural Rubber (NR) has the same characteristics as standard NR but is suitable for contact with food									75°C (167° F)
	✓					✓			✓	

Find below the characteristic of more relevant non-reinforced Albin Pump® tubes (for ALP only):

	Tygon® A-60-F: extremely flexible tubing resistant to a wide range of food product and detergents.
	Tygon® XL-60: transparent tubing and extremely flexible, resistant to a wide range of fluids, including acids and bases. Not recommended for photosensitive fluids.
	Silicone Rubber: transparent tubing with a smooth inner surface to reduce the risk of particulate entrapment. Silicone tubes can be sterilized with hot water, ethylene oxide, or acetic acid.

### Hoses Color Codes

Material	ALH High Pressure Hoses	ALP Reinforced Tubes
NR	One white stripe	One green stripe
NBR	One yellow stripe	One red stripe
NBR FDA	One white stripe and one yellow stripe	One white stripe and one red stripe
EPDM	One red stripe	One white stripe
CSM Hypalon®	One light blue stripe	One light blue stripe
FKM Viton®	One purple stripe	One purple stripe
NR FDA	FDA double white stripe	One white stripe and one green stripe

\*Relative to industry competition in comparable operating environments.