DATASHEET
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Version 1.0.

Teknikum® Peristaltic pump hoses

APPLICATIONS

Teknikum® Peristaltic pump hoses are used in displacement pumps that work peristaltically with the help of a flexible hose and a compression element.

As the pump rotor rotates, it compresses the hose with rotating rollers or compression shoes. A vacuum is formed on the suction side of the hose, which sucks the liquid into the hose, and on the pressure side, the liquid moves forward.

The hose is the main critical component on a peristaltic pump. To ensure cost-efficient pump operation with long service life and improved prediction of a hose replacement interval, a high-quality hose with correct rubber compound should be selected.

Teknikum® Peristaltic pump hoses are manufactured from special rubber compounds developed by Teknikum for this application.

The hose is available in a wide range of customized dimensions, rubber compounds and marking options.

ADVANTAGES

- Safe and high-quality rubber compound and raw materials
- Engineered for demanding pump applications with the best mechanical properties
- Excellent resistance to abrasion
- Chemical and food grade versions available
- Hose design engineered to customer requirements and specifications
- Dimensions available from i.d 10 mm up to 100 mm, for bigger sizes ask from our sales.
- Custom markings available

TECHNICAL PROPERTIES

Structure

- Tube:
  - smooth and seamless lining
  - wear resistant
  - various rubber compound options
- Reinforcement: textile
- Cover:
  - Teknikum BendyBlack NR
  - smooth
  - wear resistant natural rubber
- Working pressure up to 15 bar*
- Burst safety factor 4 x working press.

**Varies by hose structure and dimensions.*

Temperature range

- -40°C - +80°C.

MANUFACTURER

Teknikum Oy (Business ID FI07645274), Nokiankatu 1, 38210, Sastamala, Finland

TEKNIKUM

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More information
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TUBE COMPOUND OPTIONS

Rubber quality	Application examples	Typical media
Teknikum BendyBlack™ NR – Natural Rubber (black)	High wear applications, also the most diverse material. Superior mechanical properties.	Abrasive materials, alkali & chemicals and diluted acids
Teknikum FoodSafe™ NR – Natural Rubber FQ** (white)	Food grade applications	Food processes, alcohol
Teknikum BendyBlack™ NBR – Nitrile Butadiene Rubber (black)	Applications involving natural and syntetic oils, fats and hydrocarbon	Oils, fats, fuels, hydrocarbon and lubricants
Teknikum FoodSafe™ NBRF - Nitrile Butadiene Rubber FDA* (black)	Food grade applications	Vegetable or animal oils and fats
Teknikum FoodSafe™ NBR - Nitrile Butadiene Rubber FQ** (white)	Food grade applications	Vegetable or animal oils and fats
Teknikum BendyBlack™ EPDM - Ethylene Propylene Diene Monomer (black)	Acid and caustic applications	Alkaline, green liqour
Teknikum FoodSafe™ EPDM - Ethylene Propylene Diene Monomer FDA* (white)	Food grade applications	washing/cleaning chemicals
EPDM FDA - Ethylene Propylene Diene Monomer FDA* (black)	Food grade applications	washing/cleaning chemicals
CSM – Chlorosulfonated polyethylene (black)	Excellent compatability with strong acids, oxidants, alcohols, and hypochlorite	Chemicals, acids, solvents, aliphatic oils, lubricants, and fats
FKM* ** - fluorine rubber (black)	Widest chemical compatability	Chemicals, acids, and aromatic and halogenated hydrocarbon

* Food and Drug Administration approved (U.S). 21 CFR 177.2600
**Food and Drug Administration approved (U.S). 21 CFR 177.2600, EU regulation: No. 1935/2004 and German regulation: BfR XXI cat. 3
*** FKM/CSM (70/30 %) rubber blend

Rubber quality	Resistance to abrasion	Mechanical properties	Chemical compatibility	Oil compatibility
Teknikum BendyBlack™ NR	excellent	excellent	moderate	not recommended
Teknikum FoodSafe™ NR (white)	poor	moderate	poor	not recommended
Teknikum BendyBlack™ NBR	good	good	moderate	good
Teknikum FoodSafe™ NBRF (black)	moderate	moderate	moderate	good
Teknikum FoodSafe™ NBR (white)	poor	poor	poor	good
Teknikum BendyBlack™ EPDM	moderate	moderate	good	not recommended
Teknikum FoodSafe™ EPDM (white)	poor	poor	moderate	not recommended
EPDM FDA (black)	moderate	moderate	good	not recommended
CSM	moderate	moderate	excellent	moderate
FKM	poor	poor	excellent	excellent

REFERENCE IMAGES