



INSTRUCTIONS FOR THE CLEANING OF SEMPERIT FOOD QUALITY HOSES

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Semperit food-quality hoses are following requirements specified for the respective product. This ensures that no noxious substances affect the transported food. Please follow the instructions mentioned below to guarantee ideal performance of the hose, to avoid any influence on the smell and taste of the transported goods and to ensure a long life of the hose:

Initial cleaning:

New hoses usually do not have any effect on the smell or taste of the transported food. However, each hose should be treated before their initial use as follows:

1st Step	Treat for 24 hours with 1% phosphoric acid (25°C)
2nd Step	Followed by a treatment with 2% sodium hydroxide solution or 2% sodium carbonate solution
3rd Step	Finally rinsed with clear water before their initial use

Standard cleaning:

1st Step	Treat briefly with 2% sodium hydroxide or 2% sodium carbonate at 80°C
2nd Step	Followed by flushing with clear hot and cold water

Steam sterilisation:

A steam sterilisation is suitable under the following conditions for all Semperit food quality hoses:

Depressurized up to max. 130°C steam for 30 minutes. This means, one end of the hose must be always kept open so that the steam can flow and no pressure can be build-up.



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Resistance against cleaning agents:

Cleaning under following conditions should not cause significant changes in hose properties.

For hoses **LM3, LM4, LM4S/SF1500, LMD NBR, LMH NBR, LOSP, LMSP, LOSP-G, LMSP-G, LMHA 140, Flexifood and LME – Milkyline** please follow the respective maximum values for concentration and temperature as indicated below:

Cleaning agents	Max. cleaning agent concentration	Max. temperature
Aqueous dilution of the prevalent acids phosphoric acid (H ₃ PO ₄), nitric acid (HNO ₃) and sulfuric acid (H ₂ SO ₄) as well as cleaning agents based on these ingredients	max. 1-2%	up to max. +25°C
Aqueous alkaline solutions of sodium hydroxide (NaOH), potassium hydroxide (KOH), sodium bicarbonate (NaHCO ₃) and soda (Na ₂ CO ₃) as well as cleaning agents based on these ingredients	max. 2 %	up to max. +80°C
The disinfectants hydrogen peroxide (H ₂ O ₂), sodium hypochlorite (NaOCl) and peracetic acid may only be applied in very high dilution to avoid massive chemical attack of the innerliner	max. 500 ppm	up to max. +25°C



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Hoses **LMW-AQUALINE**, **LMU** and **LMUS**, **LM1-EPDM** and **LM1S-EPDM**, **LMD**, **LMB** and **LMBS** show higher resistance towards more challenging cleaning conditions, provided that the below indicated maximum concentrations and temperatures are rarely applied:

Cleaning agents	Max. cleaning agent concentration	Max. temperature
Aqueous dilution of the prevalent acids phosphoric acid (H ₃ PO ₄), nitric acid (HNO ₃) and sulfuric acid (H ₂ SO ₄) as well as cleaning agents based on these ingredients	max. 2 %	up to max. +40°C
Aqueous alkaline solutions of sodium hydroxide (NaOH), potassium hydroxide (KOH), sodium bicarbonate (NaHCO ₃) and soda (Na ₂ CO ₃) as well as cleaning agents based on these ingredients	max. 5 %	up to max. +90°C
The desinfectants hydrogen peroxide (H ₂ O ₂), sodium hypochlorite (NaOCl) and peracetic acid may only be applied in very high dilution to avoid massive chemical attack of the innerliner	max. 2000 ppm	up to max. +40°C

Please note that repeated application of the hose close to the given limits for longer periods can shorten the life time of the hose significantly. Please also refer to the respective datasheets for further information.

Special cleaning agents:

The suitability of special industrial cleaning agents and disinfectants (also for CIP facilities) is dependent on their actual composition. From the supplier recommended concentration and temperature limits for rubber hoses should be respected in any case. If doubts concerning chemical resistance towards a cleaning agent arise, our hose division may give advice based on the technical and safety datasheets of the agent.