PAL High Quality Hoses
CHEMICAL INDUSTRY
PAL High Quality Hoses: Exceeding Standards Requirements.

The PAL range of hoses, manufactured by CONTITECH, stand for reliability, security and long service life. Seventy years of experience in the construction, development and production of high quality hoses underlines the expertise. Modern manufacturing equipment, special fabrication procedures, the use of high-grade raw materials and continuous production controls guarantee first class products. In conjunction with many years of international experience from ELAFLEX in sales and use of hose assemblies, this is the basis for customer satisfaction.

Construction Features

Hose covers of EPDM or CR are resistant to abrasion, ozone and UV light, flame-retardant and electrically conductive.

Reinforcements: proven quality construction with braided inserts. The well proven design with braided reinforcements allows light weight and user friendly hoses with high burst pressures. It ensures solid structure, low elongation and torsion under pressure.

SD (suction and delivery) hoses are additionally provided with an incorporated galvanised steel wire helix.

Operating pressure PN 16; minimum burst pressure 64 bar; higher values for hose types Butapal and Pyropal. Permissible vacuum see dimension table.

Economical and Safe: Reusable Hose Couplings

We recommend the use of ELAFLEX Spannfix and Spannloc safety couplings. All EN 14420 standard types are suitable for PAL chemical hoses. Self-assembly is possible. On request, all couplings can also be crimped.
### POLYPAL® PLUS
**Universal Chemical Hose**

Lining:
- UPE black, smooth, electrically conductive
- suitable for almost all chemicals, petroleum based products and solvents at -30°C to +100°C, see PAL resistance chart
- steaming out for cleaning and sterilization up to +130°C, max. 30 min. (open ends)
- meets EN 12115

### POLYPAL® CR

**Universal Chemical Hose**

Lining:
- UPE black, smooth, electrically conductive

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**POLYPAL® CR**: special type with petroleum resistant cover of Chloroprene (CR)

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Details see catalogue page PAL 01

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### POLYPAL® CLEAN

**Universal Chemical Hose**

Lining:
- UPE bright, smooth, with OHM conductive stripe, no discolouration, electrically conductive
- suitable for almost all liquid and viscous media at -30°C to +100°C, see PAL resistance chart. Also suitable for cosmetics, hygienic / sanitary products and foodstuffs
- steaming out for cleaning up to +130°C, max. 30 min. (open ends)
- meets EN 12115
- FDA and USP Class VI conform

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Details see catalogue page PAL 03

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### ELAFLON PLUS FEP

**Universal Hose**

Lining:
- FEP, transparent, smooth, seamless, not electrically conductive
- suitable for all standard chemicals at -30°C up to +100°C, briefly up to +130°C
- steaming out for cleaning up to +150°C, max. 30 min. (open ends)
- meets EN 12115
- FDA and USP Class VI conform

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Details see catalogue page PAL 05

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### Dimensions according to EN 12115

**Pressure hoses without helix** (Version D)

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**Suction & delivery hoses with helix** (Version SD)

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### Explanations:

1) To avoid hose damage please observe the stated minimum bending radius. Especially hoses with helix and hoses with thermoplastic linings must not be over-bent to avoid kinking. Elfalex offers anti-kinking spirals KSS protecting the most stressed area directly behind the coupling, see Information 4.1SE

2) Chart values may vary depending on hose type, see catalogue. Stated values are not valid in case of conveying strongly oxidizing chemicals; in this case please consult us.

Standard lengths: 40 meters. Tolerances accordance with EN 12115
### ELAFLON PTFE

**Universal Hose**

- PTFE, black, smooth, seamless, electrically conductive
- Suitable for all standard chemicals according to PAL resistance chart, at -30°C up to +150°C
- Steaming out for cleaning up to +150°C, max. 30 min. (open ends)
- Meets EN 12115
- FDA and USP Class VI conform

**Chemical Hose**

- CIIR, black, smooth, seamless, diffusion resistant, electrically conductive
- Suitable for a large number of alkalis, acids, acetates, aldehydes, amines, esters, ethers and ketones at -40°C up to +90°C, see PAL resistance chart
- Steaming out for cleaning up to +150°C, max. 30 min. (open ends)
- Meets EN 12115

### CHEMOPAL®

**Chemical Hose**

- EPDM, black, smooth, seamless, electrically conductive
- Suitable for alkalis, acids, salt solutions, alcohols, polar solvents, acetates, aldehydes, esters, ketones, phenol, hot cooling water, hot air (not oily) at -40°C up to +100°C, see PAL resistance chart
- Steaming out for cleaning up to +150°C, max. 30 min. (open ends)
- Meets EN 12115

### TECNOPAL®

**Chemical Hose**

- NBR, black, smooth, seamless, electrically conductive
- Suitable for a large number of alkalis, acids, salt solutions, alcohols, polar solvents, acetates, aldehydes, esters, ketones, phenol, hot cooling water, hot air (not oily) at -40°C up to +100°C, see PAL resistance chart
- Steaming out for cleaning up to +150°C, max. 30 min. (open ends)
- Meets EN 12115

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**Hose Marking:**

- Characteristic coloured spiral stripe
- Abrasion-resistant continuous embossing complying with standard, see examples below

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Details see catalogue page PAL 07

Version, DN 13, 19, 25, 32, 38, 50, 63, 75, 100, 150

Details see catalogue page PAL 09

Details see catalogue page PAL 11

Specifications subject to change without notice. © ELAFLEX 2016
SOLVAPAL®

Solvent Hose
Lining:
• NBR 2 special, blue, smooth, seamless, electrically conductive
• suitable for most solvents, paints (also water based), lacquer, petroleum products, alcohols, aldehydes, esters and ketones at -20°C up to +80°C, see PAL resistance chart
• steaming out for cleaning and sterilization up to +130°C, max. 30 min. (open ends)
• meets EN 12115

BUTAPAL®

Liquefied Petroleum Gas Hose
Lining:
• NBR black, smooth, seamless, low diffusion, electrically conductive
• suitable for propane, butane and mixtures according to EN 589. Also suitable for natural gas.
• temperature range -40°C up to +70°C (special LT version low temperature resistant down to -50°C)
• DVGW approved, approval no. DG-4621 AU 0049
• meets EN 1762

PYROPAL®

Hoses for Saturated Steam
Lining:
• EPDM black, smooth, seamless, conductive dissipative
• meet EN ISO 6134 Type 1A (PYROPAL 164) respectively Type 2A (PYROPAL 230)
• Low pressure steam hose PYROPAL 164 for wet saturated steam up to 6 bar (164°C) and hot water up to 120°C:
• High Pressure steam hose PYROPAL 230 for wet saturated steam up to max. 18 bar (210°C) and hot water up to 120°C, for cold water up to 25 bar:

Online Selection of Hose Type and Configuration of the Hose Assembly
Many options, quick selection. Choose the required hose type either via the interactive resistance chart www.elaflex.de/en/configurators-resistance-charts or directly under www.hoseconfigurator.elaflex.de/pal and add couplings and accessories within seconds. The result can be saved locally or sent as request for quotation to Elaflex.
The Complete Hose System from your PAL Service Partner

PAL Chemical Hoses are distributed by authorized service partners.

The right hose for every medium - the right coupling for every hose: PAL Service Partners will give you expert advice and supply the complete hose assembly with either threaded end fittings, quick couplings or flanged ends.

Professionally mounted, checked and certified.

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22525 Hamburg / Germany
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Internet www.elaflex.de/en