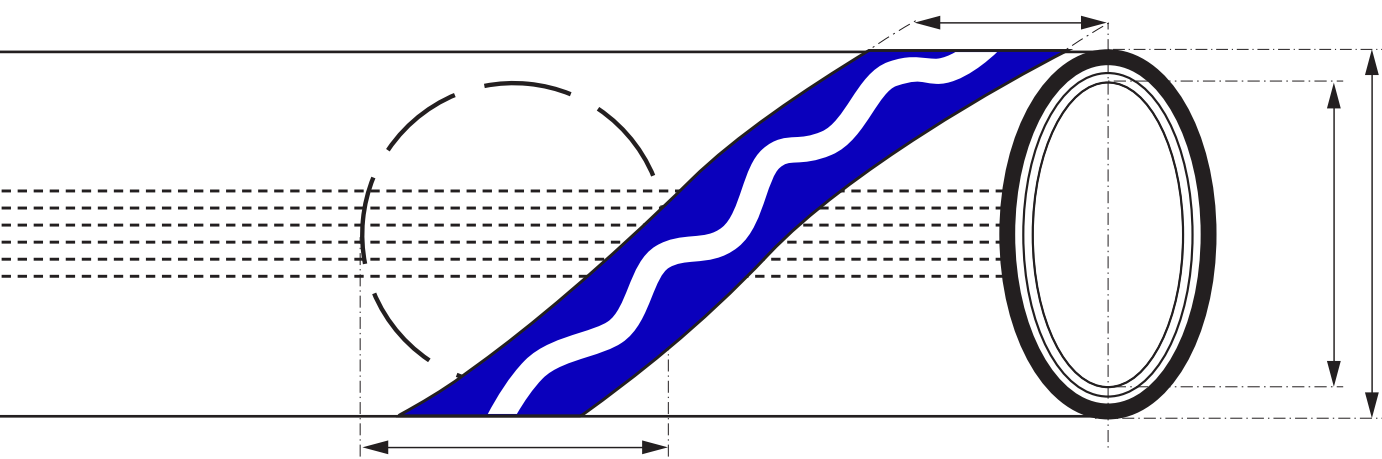


ELAFLEX



PAL High Quality Hoses

CHEMICAL INDUSTRY

made in Germany by



ContiTech

EDITION
2016

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.

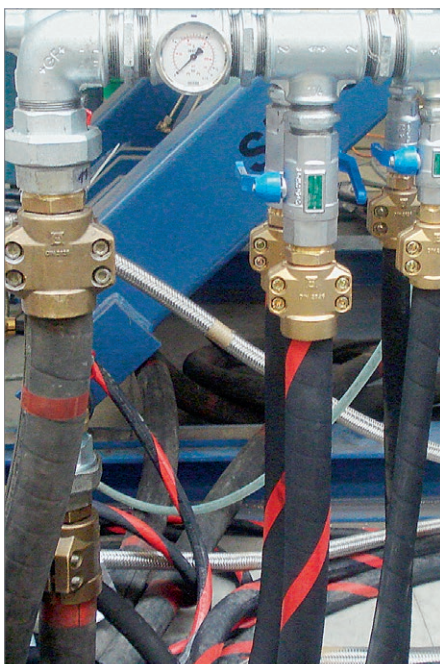
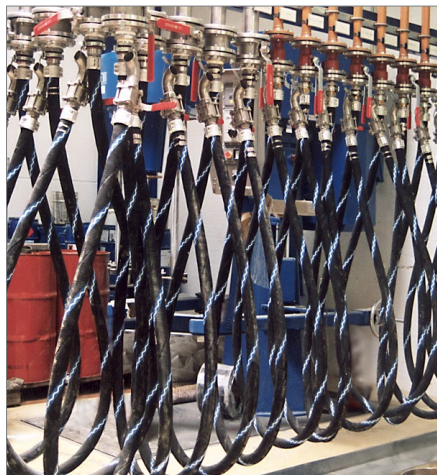
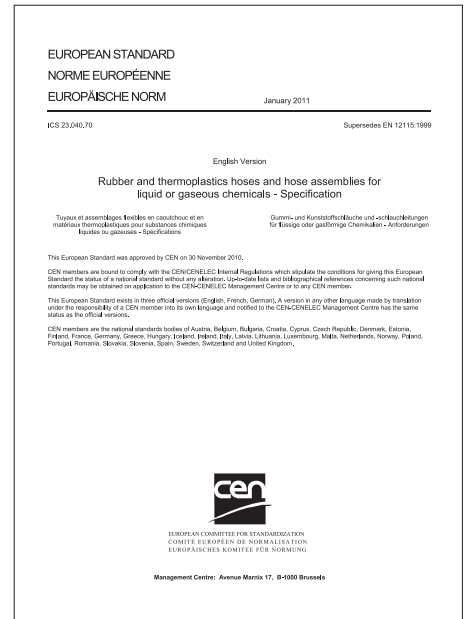
Reinforcements: proven quality construction with braided inserts. The well proven design with braided reinforcements allows light weight and user friendly hoses with high burst pressures. It ensures solid structure, low elongation and torsion under pressure.

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.

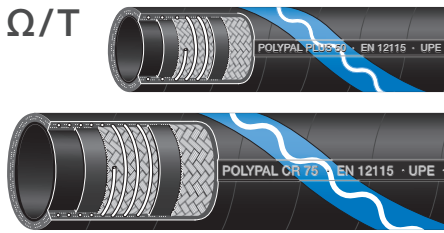
Economical and Safe: Reusable Hose Couplings

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 POLYPAL® CR

Ω/T



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

Version	DN	13	19	25	32	38	50	63	75	100
SD										

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

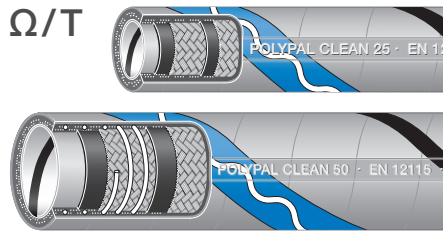
Version	DN	13	19	25	32	38	50	63	75	100
SD										

Details see catalogue page PAL 01

standard stock sizes sizes on request

POLYPAL® CLEAN

Ω/T



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

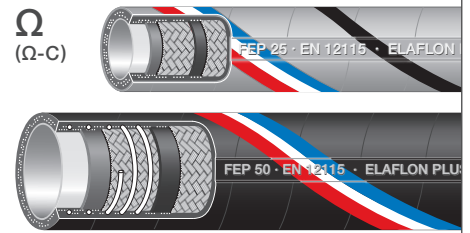
- cover EPDM light grey with OHM conductive stripe

Version	DN	13	19	25	32	38	50	63	75	100
D										
SD										

Details see catalogue page PAL 03

ELAFLON PLUS FEP

Ω
(Ω-C)



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

- cover EPDM light grey with OHM conductive stripe (up to DN 50) or black (DN 63-100)

Version	DN	13	19	25	32	38	50	63	75	100
D										
SD										

Details see catalogue page PAL 05

Dimensions according EN 12115	Nominal Bore DN [mm]	Wall Thickness [mm]	Minimum Bending Radius [mm] ¹⁾										Weight per Metre [~kg]	Max. Vacuum [bar] ²⁾	
			Polypal Plus	Polypal CR	Polypal Clean	Elaflon Plus FEP	Elaflon PTFE	Chemopal	Tecnopel	Solvapal	Butapal	Pyropal			
Pressure hoses without helix (Version D)	10	5	-	-	-	-	-	-	-	-	-	70	-	0,3	0,8
	13	5	-	-	100	100	100	70	70	-	85	80	0,4	0,5/0,6	
	16	5	-	-	-	-	125	80	80	-	-	-	0,5	0,5	
	19	6	-	-	125	125	150	100	100	100	100	100	0,6	0,5	
	22	6	-	-	-	-	-	-	-	-	-	-	0,6	0,5	
	25	6	-	-	150	150	-	150	150	150	150	120	0,8	0,4	
	32	6	-	-	175	-	-	175	175	175	175	-	1,0	0,3/0,4	
	38	6,5	-	-	225	-	-	200	200	-	200	-	1,2	0,2/0,3	
	50	8	-	-	-	-	-	250	250	-	250	-	2,0	0,2	
	63	8	-	-	-	-	-	-	-	-	-	-	2,3	-	
Suction & delivery hoses with helix (Version SD)	100	8	-	-	-	-	-	-	-	-	-	750	-	4,2	-
	13	5	80	-	-	-	-	-	-	-	-	80	0,6	0,9	
	19	6	125	-	-	80	80	-	-	-	-	100	0,7	0,9	
	25	6	150	-	100	100	100	90	90	90	-	120	1,0	0,9	
	32	6	175	-	125	125	120	100	100	100	-	140	1,1	0,9	
	38	6,5	225	-	150	150	150	110	110	110	-	160	1,5	0,9	
	50	8	275	200	200	200	200	140	140	140	-	220	2,3	0,9	
	63	8	300	-	250	250	250	180	180	180	-	-	2,7	0,9	
	75	8	350	300	300	300	300	200	200	200	-	-	3,1	0,8/0,9	
	100	8	500	400	400	400	400	400	400	400	-	-	4,6	0,8	
150	6	-	-	-	-	-	800	800	800	-	-	9,8	0,8		

Explanations:

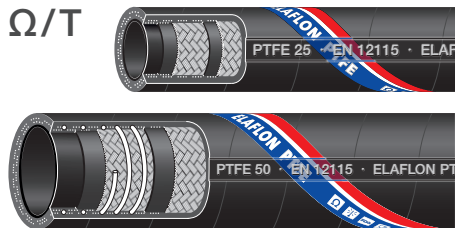
1) To avoid hose damage please observe the stated minimum bending radius. Especially hoses with helix and hoses with thermoplastic linings must not be over-bent to avoid kinking. Elaflex offers anti-kinking spirals KSS protecting the most stressed area directly behind the coupling, see Information 4.15E

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

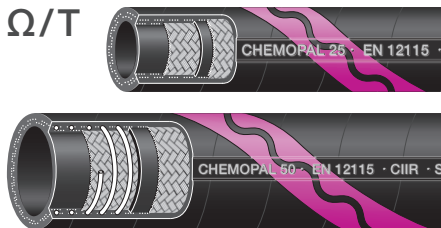
Lining:

- 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

Version	DN	13	19	25	32	38	50	63	75	100
D										
SD										

Details see catalogue page PAL 07

CHEMOPAL®



Chemical Hose

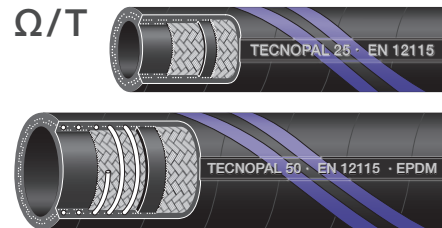
Lining:

- 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

Version	DN	13	16	19	25	32	38	50	63	75	100	150
D												
SD												

Details see catalogue page PAL 09

TECNOPAL®



Chemical Hose

Lining:

- 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

Version	DN	13	19	22	25	32	38	50	63	75	100	150
D												
SD												

Details see catalogue page PAL 11



Hose Marking:

- characteristic coloured spiral stripe
- abrasion-resistant continuous embossing complying with standard, see examples below

ELAFLEX POLYPAL PLUS 50 · EN12115 · UPE · SD · Ω/T · PN 16 · · CONTITECH · MADE IN GERMANY · 2Q-16

ELAFLEX POLYPAL CLEAN 25 · EN12115 · UPE · SD · Ω/T · PN 16 · · CONTITECH · MADE IN GERMANY · 2Q-16

ELAFLEX FEP 25 · EN12115 · ELAFLON PLUS · FEP · SD · Ω · PN 16 · · CONTITECH · MADE IN GERMANY · 2Q-16

ELAFLEX PTFE 50 · EN12115 · ELAFLON PTFE · FDA · SD · Ω/T · PN 16 · · CONTITECH · MADE IN GERMANY · 2Q-16

ELAFLEX CHEMOPAL 50 · EN12115 · CIIR · SD · Ω/T · PN 16 · · CONTITECH · MADE IN GERMANY · 2Q-16

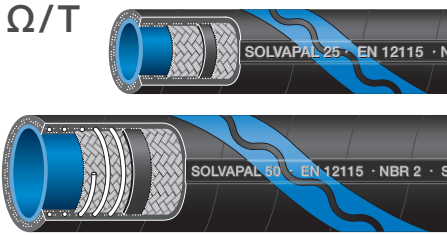
ELAFLEX TECNOPAL 50 · EN12115 · EPDM · SD · Ω/T · PN 16 · · CONTITECH · MADE IN GERMANY · 2Q-16

ELAFLEX SOLVAPAL 32 · EN12115 · NBR 2 · SD · Ω/T · PN 16 · · CONTITECH · MADE IN GERMANY · 2Q-16

ELAFLEX BUTAPAL 50 · EN1762 · D · FLÜSSIGGAS · L.P.GAS · TEMPERATUR -40°C +70°C · DVGW-DG-4621 AU 0049 · M · Ω · PN 25/WP350PSI · · CONTITECH · MADE IN GERMANY · 2Q-16

ELAFLEX PYROPAL 164 · DN 25 · EN ISO 6134-1A · EPDM · DAMPF · STEAM · Ω · PN 6 · · CONTITECH · MADE IN GERMANY · 2Q-16

SOLVAPAL®



Solvent Hose

Lining:

- NBR 2 special, blue, smooth, seamless, electrically conductive
- suitable for most solvents, paints (also water based), water 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

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

Details see catalogue page PAL 13

standard stock sizes sizes on request

BUTAPAL®



Liquefied Petroleum Gas Hose

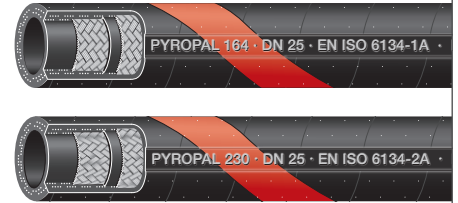
Lining:

- 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

Version	DN	10	13	19	25	32	38	50	75	100
D										

Details see catalogue page PAL 15

PYROPAL® 164 PYROPAL® 230



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:

Version	DN	10	13	19	25	32	38	50	75	100
D										

- 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:

Version	DN	10	13	19	25	32	38	50	75	100
D										

Details see catalogue page PAL 17

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.

ELAFLEX HIBY GmbH & Co. KG

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22525 Hamburg / Germany

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Fax +49 (040) 540 00 5 - 67

E-Mail info@elaflex.de
Internet www.elaflex.de/en

YOUR PAL SERVICE PARTNER :