

Acid & Chemicals



ENGINEERING YOUR SUCCESS.



F – Acid & Chemicals

Hose	ID Range (mm)	Temp. Range (°C)	Application
POLIAX D EN 12115	19 - 100	-35 / +100	chemical resistance table
POLIAX D SM EN 12115	19 - 100	-35 / +100	chemical resistance table
POLIAX UPE CON SM EN 12115	19 - 100	-20 / +100	chemical resistance table
POLIAX UPE CON SM EN 12115 OND	19 - 100	-20 / +100	chemical resistance table
POLIAX F EN 12115	13 - 75	-40 / +150	chemical resistance table
POLIAX PHARMA	13 - 51	-60 / +200	chemical resistance table

WARNING!

If delivering chemicals over +25 °C (+77 °F), please contact us. Many chemical products can cause severe injuries to people or damage to property, and here are risks of environmental pollution in case of leakage or hose burst. All necessary measures must be taken in order to avoid accidents both during normal service operations and during hydrostatic tests, which must be carried out by trained personnel using suitable tools.



	Tube	Reinforce- ment	Cover	WP (bar)	Design Factor	Suction	Industry standard	Page
	EPM	textile + copper wires	EPDM	16	4		EN 12115	F4
	EPM	textile + copper wires	EPDM	16	4	yes	EN 12115	F5
	UHMWPE	textile + copper wires	EPDM	16	4	yes	EN 12115	F6
	UHMWPE	textile + copper wires	EPDM	16	4	yes	EN12115	F7
	PTFE	textile + copper wires	EPDM	16	4	yes	EN 12115	F8
	SILICONE	textile + copper wires	SILICONE	6/15	3	yes		F9



POLIAX D EN 12115

According to EN 12115

Suitable for delivery of highly aggressive chemicals, according to EN 12115,

Hose Construction

- Tube:** Black, smooth antistatic EPM nitrosamine free rubber compound
- Reinforcement:** Synthetic textile fabrics and built-in copper wires to facilitate the electrical connection between hose and end couplings
- Cover:** Black, antistatic ($R < 1 \text{ M}\Omega/\text{m}$), EPDM rubber compound, heat, abrasion, ageing and weather resistant



- In-plant and storage tank transfer
- Nitrosamine free
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Design Factor 4:1



Tolerances

According to EN 12115






Refer to Technical Handbook on page TH35

Temperature Range

-35 °C (-31 °F) to +100 °C (+212 °F)

For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.

Bold printed part numbers are stock products.

Part Number			 Max. Working Pressure			 Weight	 min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36810131/40	25	37	1.6	232.0	16	0.71	225	Y
IH36810132/40	32	44	1.6	232.0	16	0.86	262.5	Y
IH36810133/40	38	51	1.6	232.0	16	1.11	337.5	Y
IH36810134/40	50	66	1.6	232.0	16	1.72	412.5	Y
IH36810135/40	63.5	79	1.6	232.0	16	2.10	450	N
IH36810136/40	75	91	1.6	232.0	16	2.56	525	N
IH36810137/40	100	116	1.6	232.0	16	3.38	675	N

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Hose layline example

POLIAX D EN 12115:2011 - EPDM - D - I.D. - WP ...bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year  **MADE IN ITALY**



POLIAX D SM EN 12115

According to EN 12115

Suitable for suction and delivery of highly aggressive chemicals, according to EN 12115.

Hose Construction

- Tube:** Black, smooth antistatic EPM nitrosamine free rubber compound
- Reinforcement:** Synthetic textile fabrics, embedded steel wire helix and built-in copper wires to facilitate the electrical connection between hose and end couplings
- Cover:** Black, antistatic ($R < 1 \text{ M}\Omega/\text{m}$), EPDM rubber compound, heat, abrasion, ageing and weather resistant

Temperature Range

-35 °C (-31 °F) to +100 °C (+212 °F)

For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.



- In-plant and storage tank transfer
- Nitrosamine free
- Flexibility and kink resistance
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Vacuum 0.9 bar up to 63.5 mm then 0.8 bar
- Design Factor 4:1



Tolerances

According to EN 12115






Refer to Technical Handbook on page TH35

Fitting Series

48 (up to I.D. 50 mm)

IF (from I.D. 63.5 mm)

Bold printed part numbers are stock products.

Part Number			 Max. Working Pressure			 Weight	 min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36810111/40	19	31	1.6	232.0	16	0.70	125	Y
IH36810112/40	25	37	1.6	232.0	16	0.92	150	Y
IH36810113/40	32	44	1.6	232.0	16	1.09	175	Y
IH36810114/40	38	51	1.6	232.0	16	1.35	225	Y
IH36810115/40	50	66	1.6	232.0	16	1.84	275	Y
IH36810116/40	63.5	79	1.6	232.0	16	2.54	300	Y
IH36810117/40	75	91	1.6	232.0	16	3.12	350	Y
IH36810118/40	100	116	1.6	232.0	16	4.41	450	N

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Hose layline example

POLIAX D EN 12115:2011 - EPDM - SD - I.D. - WP ...bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year



MADE IN ITALY





POLIAX UPE CON SM EN 12115

According to EN 12115

POLIAX UPE CON SM EN 12115 is an heavy duty hose for suction and delivery of a wide range of highly aggressive chemicals such as most industrial acids, alkalis, oils, fuels and solvents. It can be used as a flexible connection in paint plants.

Refer to the Chemical Resistant Chart to determine compatibility with specific chemicals. For severe or special applications – for tighter bending radius – or if in doubt, please ask our Technical Assistance.

Hose Construction

- Tube:** Lucent, black, smooth, conductive, ultra high molecular weight polyethylene (UHMWPE), suitable for foodstuff contact according to FDA, EEC Directive, Italian Decrees
- Reinforcement:** Synthetic textile fabrics, embedded steel wire helix and built-in copper wires to allow the electrical connection between hose and couplings
- Cover:** Black, antistatic ($R < 1 \text{ M}\Omega/\text{m}$), EPDM rubber compound, heat, abrasion, ageing and weather resistant



- High flexibility and kink resistance
- Fits also foodstuffs according to FDA
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Vacuum: 0.9 bar up to dn 63.5, 0.8 bar for larger sizes
- Design Factor 4:1

Temperature Range

-20 °C (+5 °F) to +100 °C (+212 °F)

For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.

Tolerances

According to EN 12115






Refer to Technical Handbook on page TH35

Fitting Series

48 (up to I.D. 50 mm)

IF (from I.D. 63.5 mm)

Bold printed part numbers are stock products.

Part Number			 Max. Working Pressure			 Weight	 min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36811529/40	19	31	1.6	232.0	16	0.71	187.5	Y
IH36811530/40	25	37	1.6	232.0	16	0.87	225.0	Y
IH36811531/40	32	44	1.6	232.0	16	1.07	262.5	Y
IH36811532/40	38	51	1.6	232.0	16	1.35	337.5	Y
IH36811534/40	50	66	1.6	232.0	16	2.29	412.5	Y
IH36811535/40	63,5	79	1.6	232.0	16	2.51	450.0	Y
IH36811536/40	75	91	1.6	232.0	16	3.07	525.0	Y
IH36811538/20	100	116	1.6	232.0	16	4.43	675.0	N

WARNING!

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Hose layline example

POLIAX EN 12115:2011 - UPE - SD - I.D. - WP ...bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year



MADE IN ITALY



POLIAX UPE CON SM OND EN 12115

According to EN 12115

POLIAX UPE CON SM EN 12115 OND is a very flexible hose suitable for suction and delivery of a wide range of highly aggressive chemicals such as most industrial acids, alkalis, oils, fuels and solvents. It can also be used as a flexible connections in paint plants.

Refer to the Chemical Resistant Chart to determine compatibility with specific chemicals. For severe or special applications – for tighter bending radius – or if in doubt, please ask our Technical Assistance.

Hose Construction

- Tube:** Lucent, black, smooth, conductive, ultra high molecular weight polyethylene (UHMWPE), suitable for foodstuff contact according to FDA, EEC Directive, Italian Decrees
- Reinforcement:** Synthetic textile fabrics, embedded steel wire helix and built-in copper wires to allow the electrical connection between hose and couplings
- Cover:** Black, corrugated, antistatic ($R < 1 \text{ M}\Omega/\text{m}$), EPDM rubber compound, heat, abrasion, ageing and weather resistant



- Extreme flexibility, superior kink resistance, minimal force to bend
- Fits also foodstuffs according to FDA
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Vacuum: 0.9 bar up to dn 63.5, for larger sizes 0.8 bar
- Design Factor 4:1

Temperature Range

-20 °C (+5 °F) to +100 °C (+212 °F)






For aggressive chemicals and solvents the hose is intended to be used at room temperature. The hose can be cleaned and sterilized with usual detergents or steam – a temperature of +130 °C (+266 °F) for short periods.

Tolerances

According to EN 12115

Refer to Technical Handbook on page TH35

Bold printed part numbers are stock products.

Part Number			 Max. Working Pressure			 Weight	 min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36811570/40	19	31	1.6	232.0	16	0.71	38	Y
IH36811571/40	25	37	1.6	232.0	16	0.87	50	Y
IH36811572/40	32	44	1.6	232.0	16	1.07	64	Y
IH36811573/40	38	51	1.6	232.0	16	1.35	76	Y
IH36811574/40	50	66	1.6	232.0	16	2.29	100	Y
IH36811575/40	63,5	79	1.6	232.0	16	2.51	127	N
IH36811576/40	75	91	1.6	232.0	16	3.07	150	Y
IH36811577/20	100	116	1.6	232.0	16	4.43	200	N

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Hose layline example

POLIAX EN 12115:2011 - UPE - SD - I.D. - WP ...bar - Ω - TRbF 131 T2p. 5.5 - Quarter/Year



MADE IN ITALY





POLIAX F EN 12115

According to EN 12115

POLIAX F EN 12115 is manufactured with high quality elastomers, with excellent chemical and mechanical properties, it results suitable for suction and delivery of a wide range of highly aggressive chemicals and solvents. Hose resistant to high temperature and designed for heavy chemical, foodstuff, pharmaceutical and cosmetic industry. Full conductive hose type Ω/T according to EN 12115, $R < 1M\Omega$ and $R < 1G\Omega$ through the wall. Suitable also for ATEX area.

Not to be used with chlorine tri-fluoride, chlorine and fluorine gas, oxygen di-fluoride, phosgene and molten alkalis (e.g., sodium).

Hose Construction

Tube: Black, smooth, phthalates free PTFE (poly-tetrafluoroethylene). Superior resistance to high temperature, mechanical stress and to oxidation.

Reinforcement: High temperature resistant plies, galvanized helix wire and copper wires to discharge electricity.

Cover: Black, smooth, conducting ($R < 1 M \Omega/m$) EPDM rubber compound, ageing, ozone and abrasion resistant.



- High flexibility and kink resistance
- Fits also foodstuffs according to FDA
- Suitable for ATEX areas
- Meets TRbF 131 part 2 par 5.5 (flame resistance)
- Meets USP XXXII class VI requirements
- Vacuum: 0.9 bar
- Design Factor 4:1

Temperature Range






-40 °C (-40 °F) to +150 °C (+302 °F)

For aggressive chemical and solvents intended to be used at high temperature please contact out Technical Assistance. For cleaning & sterilization refer to "Guidelines to the Use and Cleaning of Food and Pharma rubber hoses".

Tolerances

According to EN 12115

Refer to Technical Handbook on page TH35

Part Number			 Max. Working Pressure			 Weight	 min. Bend Radius	in Stock
	I.D. (mm)	O.D. (mm)	MPa	psi	bar	kg/m	mm	
IH36811541/40	13	25	1.6	232	16	0.54	90	N
IH36811542/40	19	31	1.6	232	16	0.70	130	N
IH36811543/40	25	37	1.6	232	16	0.86	170	N
IH36811544/40	32	44	1.6	232	16	1.18	215	N
IH36811545/40	38	51	1.6	232	16	1.43	255	N
IH36811546/40	50	66	1.6	232	16	2.08	330	N
IH36811547/40	63.5	79.5	1.6	232	16	2.96	430	N
IH36811548/40	75	91	1.6	232	16	3.43	510	N

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Hose layline example





POLIAX PHARMA

Flexible hose suitable for suction and delivery of pharmaceutical and cosmetic products and also suitable for food transfer. Not intended for use as an implant material. This silicone hose shows a Platinum-catalyzed cure system.

Not suitable for blood or human fluids.

Hose Construction

Tube: Translucent, smooth, phthalates free, SILICONE rubber compound.
Reinforcement: High temperature resistant plies and stainless steel wire helix
Cover: Translucent, smooth, SILICONE rubber compound, heat, ageing, ozone and abrasion resistant.

Temperature Range

-60 °C (-76 °F) to +200 °C (+392 °F)






For aggressive chemicals and solvents intended to be used at high temperature please contact our Technical Assistance. For cleaning & sterilization refer to "Guidelines to the Use and Cleaning of Food and Pharma rubber hoses"

Tolerances

According to UNI EN ISO 1307



- High Flexibility and kink resistance
- Meets European Pharmacopoeia 3.1.9 Ed. VII 2011
- 3A Sanitary Standard Class II
- Japan Ministry of Health and Welfare Notice No.370,1959, No.201,2006 and revision 2012
- USP XXXII class VI requirements
- ISO 10993 Sections 5, 10, 11:2009
- FDA CFR 21 PART 177.2600
- DM 21/03/1973
- BfR Recommendation XV & XXI Cat. 2
- European Regulation 1935/2004/CE
- Tested in compliance with 907/2006/CE (REACH)
- Vacuum: 0.9 bar
- Design Factor 3:1

Part Number	 I.D. (mm)	 O.D. (mm)	 Max. Working Pressure			 Weight	 min. Bend Radius	in Stock
			MPa	psi	bar			
IH36811580/40	13	24	1.5	225	15	0.46	60	N
IH36811581/40	16	27	1.4	210	14	0.53	70	N
IH36811582/40	19	30	1.3	195	13	0.6	80	N
IH36811583/40	25	36	1.0	150	10	0.73	100	N
IH36811584/40	32	43	0.8	120	8	0.89	130	N
IH36811585/40	38	51	0.7	105	7	1.21	155	N
IH36811586/40	51	64	0.6	90	6	1.56	210	N

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Hose layline example

→POLIAX →PHARMA



