

New High-Performance PU-Cover Rubber Hoses

The Fusion of Two Worlds in One



ENGINEERING YOUR SUCCESS.

POLYURETHANE AND RUBBER

A combination with undreamed-of possibilities

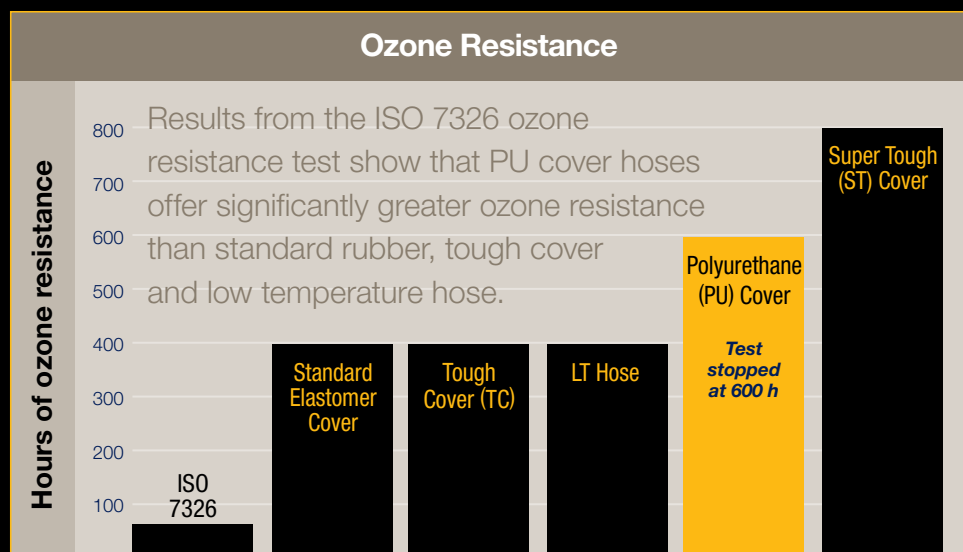
Parker rubber hoses with polyurethane-cover – the range for the future

With hoses 462PU, 692PU and 837PU-Plus, Parker has realised the combination of synthetic rubber and polyurethane.

Due to the manufacturing process and the combination of the two materials, these hoses reach new dimensions in terms of quality and product properties.

The outstanding properties

- Excellent mechanical strength
- Extreme resistance to wear and tear
- Very high impact strength
- Extraordinary damping properties
- Outstanding resistance against ozone, weathering, humidity, microbes and UV radiation
- Resistant to oils, fats and solvents
- Resistant to extremely low temperatures
- Marginal plastic deformation
- Halogen free, meets RoHS and REACH requirements
- Seawater resistant



MAIN FEATURES

of Parker PU-covered rubber hoses at a glance

Ozone resistance



Polyurethane hoses (pure)	
Rubber hoses (pure)	
PU-cover rubber hoses 462PU / 692PU / 837PU-Plus	ozone resistance

Abrasion resistance



Polyurethane hoses (pure)	
Rubber hoses (pure)	
PU-cover rubber hoses 462PU / 692PU / 837PU-Plus	abrasion resistance

Resistant to temperature



Polyurethane hoses (pure)	
Rubber hoses (pure)	
PU-cover rubber hoses 462PU / 692PU / 837PU-Plus	temperature range

Flexibility



Polyurethane hoses (pure)	
Rubber hoses (pure)	
PU-cover rubber hoses 462PU / 692PU / 837PU-Plus	flexibility

Pressure / Torsion resistance



Polyurethane hoses (pure)	
Rubber hoses (pure)	
PU-cover rubber hose 837PU-Plus	> 1 million test cycles

Low-cost assembly



Polyurethane hoses (pure)	
Rubber hoses (pure)	
PU-cover rubber hose 837PU-Plus	low nipple insertion forces

APPLICATIONS

where Parker PU-cover rubber hoses
make a world of difference

Energy chains



Injection moulding



Car production lines



Telehandlers



Machine tools



Forklift trucks



Robots



Blow moulding



462PU AND 692PU

Rubber hoses with highly abrasion-resistant polyurethane-cover

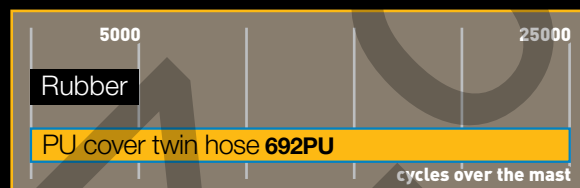
Working temperatures
of
-45/-50 °C
up to +100 °C

Synthetic rubber tube
resistant to hydraulic
fluids, dry air, water,
watery emulsions,
bio-oil etc.

A comparison test between rubber and PU-cover hoses was performed for material handling applications to estimate the abrasion resistance. A rubber twin hose and a PU covered twin hose (692PU size -6) were mounted over a forklift mast and started to move up and down measuring the number of cycles. The PU-cover twin hose reached more than 25,000 cycles performing five times better than the standard rubber hose.

What hose type 462PU and 692PU have in common is the combination of the rubber tube with the polyurethane-cover for the best performance – a combination with a design factor of 4:1 which makes this hose range outstanding on forklift

trucks. Due to the better performance of the PU-cover in terms of abrasion, ozone and cold resistance, both hoses are the preferred solution for the more demanding environment conditions. The PU-cover also delivers the possibility to produce twin hoses with even higher working pressures than standard rubber hoses and will answer the requirements of larger materials handling applications where higher working pressures and abrasion resistance are the critical factors.



462PU

Type 462PU is a compact, medium pressure hydraulic hose with two steel wire braids and a working pressure from 28.0 MPa up to 42.5 MPa



692PU

Type 692PU is also a compact medium pressure hydraulic hose with one or two steel wire braids and a constant working pressure of 21.0 MPa.



Types 462PU and 692PU have been specially developed to meet the challenges of over-the-sheave applications of twin hose. This is why their main applications are forklift masts, telehandlers and materials handling equipment.

837PU-PLUS

Low pressure Push-Lok rubber hose with highly abrasion-resistant polyurethane-cover

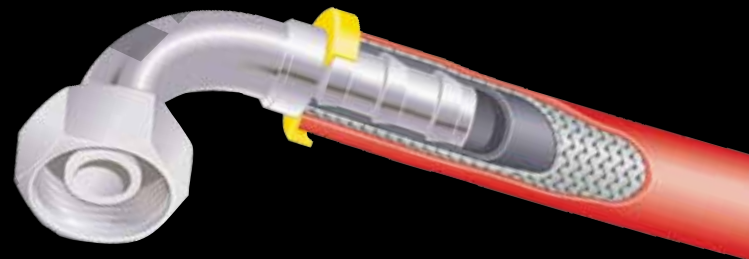
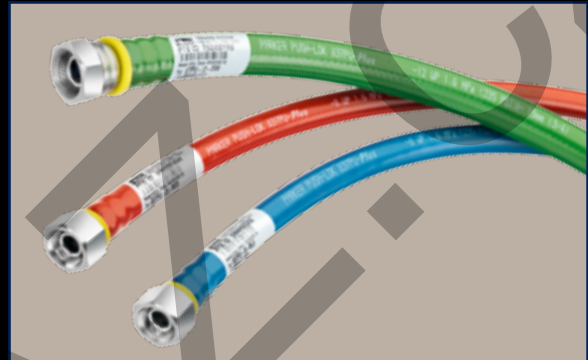
Hose cover made of high-quality polyurethane; featuring high resistance to welding spots and abrasion.

Synthetic rubber tube resistant to hydraulic fluids, dry air, water, watery emulsions etc.

Type 837PU-Plus is a low pressure Push-Lok hose with a braided reinforcement made of high-strength textile fibres.

The preferred applications of type 837PU-Plus include cooling circuits and compressed air in hose bundles and energy chains of robots, car production lines, machine tools, injection moulding and PET blow moulding machines. In all these applications the hoses are exposed to constant friction.

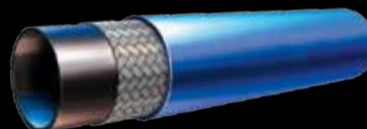
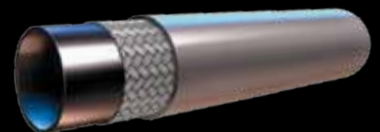
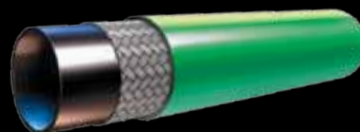
Due to the five different colours available for its cover, the 837PU-Plus is especially suitable for multiline assemblies conveying different media or for colour-coded supply and return lines.



Easy to assemble without any tools or clamps

5 different colours

- easy identification
- simple production processes
– one colour for one particular medium
- easy control of maintenance intervals
- simple stock planning in different departments



837PU-Plus

Push-Lok hose

for a wide range of applications including the automotive industry

Main applications

For the demanding requirements of energy chain systems in all markets.

Hose bundle systems in robots and the automotive industry.

Restrictions

Not suitable for air-brake systems and applications with highly dynamic pressure pulses.

Not recommended for fuels.

Not recommended for hydraulic and lubricating oils.

Hose construction

Inner tube: Synthetic rubber

Reinforcement: One layer of high-strength textile yarn

Cover: Premium quality polyurethane in different colours

Temperature range -40 °C to +100 °C

Exceptions: Air up to +70 °C

Water up to +85 °C



- High flexibility of the hose
- High abrasion resistance
- Labs-free
- Low nipple insertion forces
- Different colours for multiline assemblies conveying different media

Recommended media

Air, dry air, water, water-oil emulsions and water-glycol. (Hydraulic fluids on a mineral-oil basis and lubricating oils with chemical and thermal (70 °C) restrictions.

For further information please refer to "Chemical Resistance" in Catalogue C4400, pages **Ab-24** to **Ab-32**.

Fitting Series



Part Number	Hose I.D.				Hose O.D.	Pressure Rating				Vacuum*	min. bend radius	weight
	DN	Inch	Size	mm	mm	max. working pressure	min. burst pressure					
						MPa	psi	MPa	psi	kPa	mm	kg
837PU-4-xxx-RL	6	1/4	-4	6.4	12.7	1.6	235	6.4	940	95	30	0,11
837PU-6-xxx-RL	10	3/8	-6	9.5	15.9	1.6	235	6.4	940	95	50	0,15
837PU-8-xxx-RL	12	1/2	-8	12.7	19.8	1.6	235	6.4	940	95	70	0,26
837PU-10-xxx-RL	16	5/8	-10	15.9	23.0	1.6	235	6.4	940	51	90	0,27
837PU-12-xxx-RL	19	3/4	-12	19.1	26.2	1.6	235	6.4	940	51	110	0,33
837PU-16-xxx-RL	25	1	-16	25.4	32.5	1.6	235	6.4	940	51	180	0,52

* The vacuum value specified in the table is stated in kPa.

To obtain the absolute pressure value in kPa, subtract the value specified from 101 kPa.

Order information: To indicate the colours you wish to order, please add the following code to the order number:

e.g. 837PU-4-XXX-RL

XXX = BLK for black
BLU for blue
RED for red
GRN for green
GRA for grey



Example: The order number for 837PU-4-RL in green is 837PU-4-GRN-RL

RL = only available as bulk hose on drums

Hose layline (example)

PARKER PUSH-LOK 837PU-Plus-8 WP 1,6 MPa [235 PSI] | ° 12,5 mm [1/2]

1,6 MPa

462PU-No-Skive

Compact hose with
2 steel wire braids
as single or twin hose

Main applications

For truck cranes and lifting equipment such as forklift trucks, aerial lifts, cranes, telehandlers, lifting platforms. Ideal for over-the-sheave or reel applications. The best solution for all the demanding medium pressure hydraulic applications in all markets, especially mobile and construction equipment.

Applicable Specifications

Exceeds EN 857 2SC - ISO 11237 type 2SC

Hose construction

Inner tube: Nitrile (NBR)

Reinforcement: Two high-tensile steel wire braids

Cover: Premium-quality polyurethane

Temperature range -50 °C to +100 °C

Exceptions: Air up to +70 °C

Water up to +85 °C








- No-Skive hose construction
- High abrasion and shock resistance
- High flexibility even at cold conditions
- High ozone-, UV-, weathering and seawater resistance
- Extended fluid compatibility
- Exceeding EN/ISO specifications

Recommended media

Hydraulic fluids on a mineral-oil basis, water-glycol and lubricating oils, air and water. For air and gas applications with a pressure exceeding 1.7 MPa, the cover must be pin-pricked. For further information, please refer to "Chemical Resistance" in Catalogue C4400, pages **Ab-24** to **Ab-32**.

Fitting Series



Part Number	 Hose I.D.				 Hose O.D.	Pressure Rating				 min. bend radius	 weight						
	DN	Inch	Size	mm	mm	 max. working pressure	MPa		psi		 min. burst pressure	MPa		psi		mm	kg
Single hose																	
462PU-4	6	1/4	4	6.4	13.4	42.5	6160		170.0		24640		75		0.30		
462PU-5	8	5/16	5	7.9	15.0	40.0	5800		160.0		23200		85		0.35		
462PU-6	10	3/8	6	9.5	17.2	35.0	5075		140.0		20300		90		0.42		
462PU-8	12	1/2	8	12.7	20.4	31.0	4495		124.0		17980		130		0.52		
462PU-10	16	5/8	10	15.9	23.9	28.0	4060		112.0		16240		160		0.66		
Twin hose																	
462PU-4-4	6	1/4	4	6.4	28.2	42.5	6160		170.0		24640		75		0.60		
462PU-5-5	8	5/16	5	7.9	32.5	40.0	5800		160.0		23200		85		0.70		
462PU-6-6	10	3/8	6	9.5	35.0	35.0	5075		140.0		20300		90		0.85		
462PU-8-8	12	1/2	8	12.7	41.5	31.0	4495		124.0		17980		130		1.00		
462PU-10-10	16	5/8	10	15.9	48.7	28.0	4060		112.0		16240		160		1.35		

The combination of high temperature and high pressure can reduce the service life of the hose.

Hose layline (examples for single and twin hose)

PARKER ELITE 462PU-8 WP 31,0 MPa (4495 psi) | • • 12,5 mm (1/2 ")

692PU-No-Skive

Compact hose with
1 or 2 steel wire braids
as single or twin hose

Main applications

Material handling industry, where tight bend radii, flexibility, ozone, abrasion and shock resistance are needed and required. Ideal for over-the-sheave or reel applications.

Applicable Specifications

Parker specification – constant working pressure

Hose construction

Inner tube: Nitrile (NBR)

Reinforcement: One or two braids of high-tensile steel wire

Cover: Premium-quality polyurethane

Temperature range -45 °C to +100 °C

Exceptions: Air up to +70 °C

Water up to +85 °C



- No-Skive hose construction
- Constant working pressure
- High abrasion and shock resistance
- High flexibility even at cold conditions
- High ozone-, UV- and weathering resistance
- Extended fluid compatibility
- Tight bend radius

21.0 MPa

Recommended media







Hydraulic fluids on a mineral-oil basis, water-glycol and lubricating oils, air and water. For air and gas applications with a pressure exceeding 1.7 MPa, the cover must be pin-pricked. For further information, please refer to “Chemical Resistance” in Catalogue C4400, pages **Ab-24** to **Ab-32**.

Fitting Series

Size -4 up to -6

Size -8 up to -10



Part Number	 Hose I.D.				 Hose O.D.	Pressure Rating				 min. bend radius	 weight
	DN	Inch	Size	mm	mm	 max. working pressure	 min. burst pressure				
	MPa	psi	MPa	psi	mm	kg					
Single hose											
692PU-4	6	1/4	4	6.4	11.5	21.0	3045	84.0	12180	40	0.18
692PU-5	8	5/16	5	7.9	13.6	21.0	3045	84.0	12180	40	0.21
692PU-6	10	3/8	6	9.5	15.5	21.0	3045	84.0	12180	40	0.25
692PU-8	12	1/2	8	12.7	20.4	21.0	3045	84.0	12180	50	0.52
692PU-10	16	5/8	10	15.9	23.9	21.0	3045	84.0	12180	60	0.66
Twin hose											
692PU-4-4	6	1/4	4	6.4	24.0	21.0	3045	84.0	12180	40	0.36
692PU-5-5	8	5/16	5	7.9	27.4	21.0	3045	84.0	12180	40	0.42
692PU-6-6	10	3/8	6	9.5	31.2	21.0	3045	84.0	12180	40	0.50
692PU-8-8	12	1/2	8	12.7	41.5	21.0	3045	84.0	12180	50	1.00
692PU-10-10	16	5/8	10	15.9	48.7	21.0	3045	84.0	12180	60	1.35

The combination of high temperature and high pressure can reduce the service life of the hose.

Hose layline (examples for single and twin hose)

PARKER 692PU-6 WP 21,0 MPa (3046 psi) | • • 10 mm (3/8 ")

Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai
Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt
Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku
Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com

BG – Bulgaria, Sofia
Tel: +359 2 980 1344
parker.bulgaria@parker.com

BY – Belarus, Minsk
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

CH – Switzerland, Etoy
Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klecany
Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid
Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Athens
Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budaörs
Tel: +36 23 885 470
parker.hungary@parker.com

IE – Ireland, Dublin
Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty
Tel: +7 7273 561 000
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Asker
Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal, Leca da Palmeira
Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest
Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow
Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga
Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica
Tel: +421 484 162 252
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario
Tel: +1 905 693 3000

US – USA, Cleveland
Tel: +1 216 896 3000

Asia Pacific

AU – Australia, Castle Hill
Tel: +61 (0)2-9634 7777

CN – China, Shanghai
Tel: +86 21 2899 5000

HK – Hong Kong
Tel: +852 2428 8008

IN – India, Mumbai
Tel: +91 22 6513 7081-85

JP – Japan, Tokyo
Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul
Tel: +82 2 559 0400

MY – Malaysia, Shah Alam
Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington
Tel: +64 9 574 1744

SG – Singapore
Tel: +65 6887 6300

TH – Thailand, Bangkok
Tel: +662 186 7000

TW – Taiwan, Taipei
Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

BR – Brazil, Sao Jose dos Campos
Tel: +55 800 727 5374

CL – Chile, Santiago
Tel: +56 2 623 1216

MX – Mexico, Toluca
Tel: +52 72 2275 4200

European Product Information Centre

Free phone: 00 800 27 27 5374

(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)



Parker Hannifin Ltd.

Tachbrook Park Drive
Tachbrook Park,
Warwick, CV34 6TU
United Kingdom
Tel.: +44 (0) 1926 317 878
Fax: +44 (0) 1926 317 855
parker.uk@parker.com
www.parker.com