

Colex International Limited

Industrial Product Range

PVC Hose and Tube - RP, RPE & CP

Colex reinforced and unreinforced PVC is lightweight and flexible with a smooth bore that ensures an excellent flow rate of the contents.

Manufactured from crystal clear compounds to ensure full visibility of the flow of contents, Colex PVC hoses and tubes have excellent chemical, corrosion and abrasion resistance, good UV resistance and a wide range of operating temperatures. PVC is also self extinguishing and does not support combustion.

Our RP and RPE ranges are reinforced with 1000 denier polyester high tenacity yarn for increased working pressures. All PVC hose is available in clear and the most popular sizes in the RP range are also available from stock with a clear inner and a variety of cover colours.

- All raw materials used in Colex hose and tubing have FDA or European Directive approvals for use in food contact applications, are silicon and heavy metal free and conform fully to RoHS & WEEE directives.
- Colex PVC tube is BS softness 43/45.
- Reinforced PVC is manufactured to comply with BS EN ISO5774:2001.
- The raw materials are flame resistant and comply with UL94-V1 at 3mm thickness.
- Bore and tolerances to BS EN_ISO1307:2006.

Polyurethane Hose and Tube - RPU & PU

Colex manufactures both reinforced and unreinforced grades of polyurethane which offer chemical, corrosion and abrasion resistance, excellent resistance to petroleum based products and a good resistance to UV.

They are highly elastic and lightweight, very flexible, even at low temperatures, and a good bend radii can be achieved.

All polyurethane hose and tube is manufactured from clear ether based material and is suitable for a wide range of operating temperatures.

Our RPU hose is reinforced with a 1000 denier polyester high tenacity yarn giving the reinforced polyurethane hose range excellent pressure carrying capabilities.

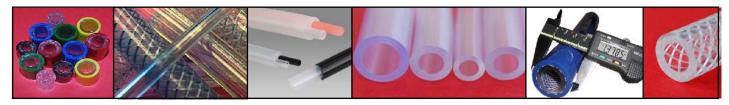
No plasticisers are used in the material that our PU hoses and tubing are manufactured from, eliminating any risk of migration or work hardening.

CUSTOM MANUFACTURE—THE OPTIONS ARE ENDLESS

We can offer a number of customisations to make our stock products suit your needs. For example, printing to customer requirements including logos, long lengths on drums, cut lengths, non-standard colours & sizes, packing options.

There are also many other products that we can custom make just for you that may be better suited to your needs. Please see our Custom Manufacture brochure or visit www.colexint.com/custom-manufacture for more details.

ORDERS MAY BE SUBJECT TO MINIMUM ORDER QUANTITIES



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Industrial Tube Technical Data

Burst Pressures and Working Temperatures

This graph provides a guide to the relationship between pressure capabilities of the Colex industrial range of hose and tube, when working within a recommended working temperature range.

As the temperature falls the hose will become less flexible, the cold bend temperature being:

- -45°C for PVC
- -70°C for Polyurethane.

Extreme caution should be taken if the temperature is exceeded. Any increase in temperature above 20°C will result in a decrease in the short term burst pressure.

Short term burst pressure is defined as the value recorded when testing a hose from zero pressure to burst pressure, in a single uninterrupted attempt.

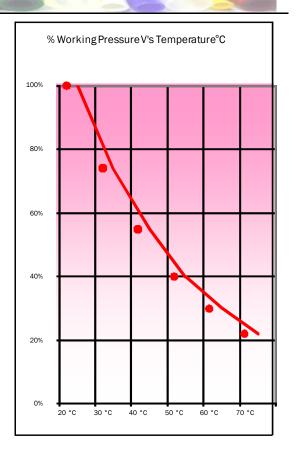


Burst pressure of RP19/26 at 20°C = 550 psi = 100%

Burst pressure of RP19/26 at 40° C = 55% of 550 psi = 302 psi

Burst pressure of RPU10/16 at 20°C = 780 psi = 100%

Burst pressure of RPU10/16 at 40°C = 55% of 780 psi = 429 psi



Safety Factors

When selecting a hose for an application it is vital that an adequate safety factor is taken into account. Below is an extract from ISO 7751: 1997 which will assist an installer in providing a proven level of safety.

Type of Service (for guidance only)	(Ratio of minimum BP to Design WP)
Water hose, max WP 10 bar	3.0
Hose for all other liquids, solid materials suspended in liquids or air and water hose, WP over 10 bar	4.0
Hose for compressed air and other gases	4.0
Hose for liquid media that change into a gaseous state when subjected to a reduction in pressure, i.e. released to atmosphere	5.0
Steam hose	10.0
Jetting hose	2.5

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Reinforced PVC Hose

Applications

Factory air supply, hydraulics, pneumatics, coolant lines, instrumentation, chemical transfer, water & fluid handling, food handling, beverage lines,

Chemical Resistance

PVC is resistant to most oxidising and reducing agents and dilute acids and

Colex reinforced PVC hose comprises a 100% flexible PVC inner tube, reinforced with a 1000 denier polyester high tenacity yarn & covered with 100% flexi-

Temperatures

-20°C to +55°C. Occasional use up to +65°C. Cold bend temperature -45°C.

Food Use



Silicone & cadmium free

Good UV resistance

Lightweight & flexible



Part Number	Nominal ID		<u>OD</u> (mm)	Burst Pressure		Kgs/30m	Bend Radius	<u>ID</u> Tolerances	OD Tolerances	<u>Lengths</u> <u>Available</u>	Colours Available Ex Stock
	<u>(mm)</u>	<u>(ins)</u>	<u>(111111)</u>	<u>psi</u>	<u>bar</u>		<u>(mm)</u>	<u>(mm)</u>	<u>(mm)</u>	Ex Stock	
RP3/8	3	1/8	8	1130	78	1.650	11	+0.25/-0.26	+0.20/-0.20	30m	Clear
RP4/9	4	5/ ₃₂	9	1120	77	1.920	14	+0.27/-0.24	+0.25/-0.26	30m	Clear
RP5/10	5	3/16	10	925	64	2.220	17	+0.26/-0.25	+0.26/-0.25	30m	Clear & black
RP6.3/11.5 [†]	6.35	1/4	11.5	840	58	2.730	22	+0.25/-0.25	+0.26/-0.25	30m 50m & 100m	Clear, yellow, green, red, blue & black Clear
RP8/13.5 [†]	8	5/16	13.5	755	52	3.510	29	+0.26/-0.25	+0.24/-0.27	30m 50m & 100m	Clear, yellow, green, red, blue & black Clear
RP10/16 [†]	10	3/8	16	682	47	4.600	37	+0.26/-0.25	+0.23/-0.23	30m 50m & 100m	Clear, yellow, green, red, blue & black Clear
RP12.5/18.5 [†]	12.5	1/2	18.5	649	45	5.490	49	+0.25/-0.26	+0.25/-0.26	30m 50m & 100m	Clear, yellow, green, red, blue & black Clear
RP16/23	16	5/8	23	537	37	8.070	65	+0.26/-0.25	+0.32/-0.29	30m	Clear & black
RP19/26 [†]	19	3/4	26	479	33	9.300	84	+0.25/-0.25	+0.26/-0.24	30m 50m & 100m	Clear, green, red, blue & black Clear
RP22/29	22	7∕8	29	432	30	10.530	104	+0.25/-0.26	+0.39/-0.37	30m	Clear
RP25/33 [†]	25	1	33	412	28	13.680	118	+0.63/-0.64	+0.38/-0.39	30m 50m & 100m	Clear & black Clear
RP32/42	31.5	1 1/4	41	393	27	21.810	153	+0.36/-0.34	+0.50/-0.51	30m	Clear & black
RP38/48	39.1	1 ½	49	319	22	25.350	210	+0.65/-0.62	+0.50/-0.51	30m	Clear
RP50/64	50	2	62	281	19	39.080	277	+0.83/-0.75	+0.51/-0.51	30m	Clear

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Reinforced PVC Hose—European Standard

Applications

Factory air supply, hydraulics, pneumatics, coolant lines, instrumentation, chemical transfer, water & fluid handling, food handling, beverage lines, materials handling, compressed air and crop spraying.

Chemical Resistance

PVC is resistant to most oxidising and reducing agents and dilute acids and alkalis.

Construction

Colex reinforced PVC hose comprises a 100% flexible PVC inner tube, reinforced with a 1000 denier polyester high tenacity yarn & covered with 100% flexible PVC.

Temperatures *

-20°C to +55°C . Occasional use up to +65°C . Cold bend temperature -45°C .

Food Use

The raw materials used have regulatory approval for food contact applications.



Thinner wall than RP

Silicone & cadmium free

Good UV resistance

Lightweight & flexible

Lightweight & flexible												
Part Number	Nomi	Nominal ID		Burst	Pressure *	Kgs/	Bend * Radius	ID Tolerances	OD Tolerances	<u>Lengths</u> Available	Colours Available	
	<u>(mm)</u>	<u>(ins)</u>	<u>(mm)</u>	<u>psi</u>	bar 30m		<u>(mm)</u>	<u>(mm)</u>	<u>(mm)</u>	Ex Stock	Ex Stock	
RPE6/11	6	1/4	11	852	59	2.52	21	+0.25/-0.26	+0.25/-0.26	30m	Clear	
RPE8/13	8	5/16	13	738	51	3.12	29	+0.26/-0.25	+0.26/-0.25	30m	Clear	
RPE10/15	10	3/8	15	652	45	3.69	39	+0.26/-0.25	+0.24/-0.27	30m	Clear	
RPE13/18	13	1/2	18	666	46	4.59	56	+0.26/-0.25	+0.24/-0.27	30m	Clear	
RPE16/22	16	5/8	22	515	36	6.72	70	+0.26/-0.25	+0.25/-0.26	30m	Clear	
RPE19/25	19	3/4	25	459	32	7.80	90	+0.25/-0.25	+0.25/-0.26	30m	Clear	
RPE25/32	25	1	32	396	27	11.76	127	+0.63/-0.64	+0.39/-0.38	30m	Clear	

^{*} For use as a guide onl

Pressures: Values stated are based on the short term burst pressure of PVC at 20°C. Any increase in temperature above 20°C will result in a decline in burst pressures.

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Reinforced PVC is supplied coiled and tyre wrapped.



Colex International Limited

Unreinforced PVC Tubing

Applications

Chemical delivery, instrumentation, pneumatic hose sleeving, sight glasses, laboratory use, drain tubes and delivering food & beverages.

Chemical Resistance

PVC is resistant to most oxidising and reducing agents and dilute acids and alkalis.

Construction

Colex CP tubing is manufactured from 100% flexible PVC.

Temperatures

-20°C to +55°C. Occasional use up to +65°C. Cold bend temperature -45°C.

Food Use

The raw materials used have regulatory approval for food contact applications.

Silicone & cadmium free

Good UV resistance

Lightweight & flexible



<u>Part</u>	Nomi	inal ID	<u>OD</u>	Kgs/30m	Bend Radius*	ID Tolerances	OD Tolerances	Lengths Available	Colours Available
<u>Number</u>	<u>(mm)</u>	<u>(ins)</u>	<u>(mm)</u>	rgs/ John	<u>(mm)</u>	<u>(mm)</u>	<u>(mm)</u>	Ex Stock	Ex Stock
Light Wall			T	T	T				
CP3/6	3	1/8	6	0.81	12	+0.18/-0.18	+0.25/-0.26	30m	Clear
CP4/6	4	⁵ / ₃₂	6	0.60	18	+0.17/-0.19	+0.25/-0.26	30m	Clear
CP5/8	5	3/16	8	1.15	21	+0.16/-0.17	+0.23/-0.28	30m	Clear
CP6/9	6	1/4	9	1.32	27	+0.17/-0.18	+0.25/-0.26	30m	Clear
CP8/11	8	⁵ / ₁₆	11	1.68	40	+0.15/-0.20	+0.25/-0.26	30m	Clear
CP9/12	9	3/8	12	1.86	48	+0.17/-0.19	+0.25/-0.27	30m	Clear
CP10/13	10	3/8	13	2.03	56	+0.16/-0.20	+0.26/-0.25	30m	Clear
CP12/15	12	1/2	15	2.40	75	+0.24/-0.27	+0.24/-0.27	30m	Clear
CP16/19	16	5/8	19	3.12	120	+0.26/-0.25	+0.25/-0.25	30m	Clear
CP19/22	19	3/4	22	3.63	140	+0.25/-0.25	+0.25/-0.26	30m	Clear
Medium Wa	all								
CP5/11	5	3/16	11	2.85	20	+0.16/-0.17	+0.25/-0.26	30m	Clear
CP6/12	6	1/4	12	3.21	24	+0.17/-0.18	+0.24/-0.27	30m	Clear
CP8/14	8	⁵ / ₁₆	14	3.90	33	+0.15/-0.20	+0.25/-0.26	30m	Clear
CP10/16	10	3/8	16	4.62	43	+0.16/-0.20	+0.26/-0.25	30m	Clear
CP12/18	12	1/2	18	5.31	54	+0.24/-0.27	+0.24/-0.27	30m	Clear
CP13/19	13	1/2	19	5.67	60	+0.26/-0.25	+0.25/-0.25	30m	Clear
CP16/22	16	5/8	22	6.72	81	+0.26/-0.25	+0.25/-0.26	30m	Clear
CP19/25	19	3/4	25	7.80	104	+0.25/-0.25	+0.25/-0.26	30m	Clear
CP22/28	22	7∕8	28	8.85	131	+0.25/-0.26	+0.37/-0.39	30m	Clear
CP25/31	25	1	31	9.90	160	+0.37/-0.39	+0.37/-0.39	30m	Clear
CP32/38	32	1 1/4	38	12.39	241	+0.36/-0.40	+0.38/-0.38	30m	Clear
CP38/44	38	1 ½	44	14.52	323	+0.38/-0.38	+0.37/-0.39	30m	Clear
CP45/51	45	1 ¾	51	16.98	434	+0.64/-0.63	+0.38/-0.38	30m	Clear
Heavy Wall						II.		I	•
CP32/41	32	1 1/4	41	19.38	187	+0.36/-0.40	+0.38/-0.39	30m	Clear
CP38/47	38	1 ½	47	22.56	245	+0.38/-0.38	+0.37/-0.39	30m	Clear
CP45/54	45	1 3/4	54	26.25	324	+0.64/-0.63	+0.38/-0.38	30m	Clear
CP50/59	50	2	59	28.92	387	+0.67/-0.60	+0.39/-0.38	30m	Clear
CP50/62	50	2	62	39.60	320	+0.67/-0.60	+0.38/-0.38	30m	Clear
CP60/72	60	2 ½	72	46.68	432	+0.63/-0.64	+0.52/-0.50	30m	Clear
CP76/88	76	3	88	57.99	645	+0.63/-0.64	+0.49/-0.52	30m	Clear

Unreinforced PVC is supplied coiled and tyre wrapped.

ures: For pressure applications Colex we recommend Colex reinforced PVC. Unreinforced PVC is NOT recommended for pressure applications.

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Reinforced Polyurethane Hose

Applications

Lubrication lines, hydraulic lines, granular transfer, robotics, oil & fuel lines, cement slurries, petroleum products, abrasive products.

Chemical Resistance

Polyurethane has a good resistance to most fuels, oils and greases and many other solvents, chemicals and gases.

Construction

Our reinforced polyurethane hose comprises a 100% ether polyurethane inner tube, reinforced with a 1000 denier polyester high tenacity yarn & covered with 100% ether polyurethane.

Temperatures

-30°C to +70°C. Occasional use up to 100°C. Brittle point: -70°C.

Food Use

The raw materials used are acceptable under FDA regulations 175.105.



Shore A 90

Silicone, cadmium & plasticiser free

Hydrolysis resistant

	Nomin	al ID	OD	<u>Burst</u> l	Pressure*	v. /22	* Bend Radius	ID Tolerances	OD Tolerances	<u>Lengths</u>	Colours
<u>Part Number</u>	rt Number (mm) (ins) (mm)			<u>psi</u>	<u>bar</u>	<u>Kgs/30m</u>	<u>(mm)</u>	<u>(mm)</u>	<u>(mm)</u>	Available Ex Stock	Available Ex Stock
RPU6.3/11.5	6.35	1/4	11.5	870	60	2.430	22	+0.25/-0.25	+0.26/-0.25	30m	Clear
RPU10/16	10	3/8	16	780	53	4.120	37	+0.26/-0.25	+0.26/-0.25	30m	Clear
RPU12.5/18.5	12.5	1/2	18.5	510	35	5.410	49	+0.25/-0.26	+0.25/-0.26	30m	Clear
RPU16/23	16	5/8	23	600	41	7.200	65	+0.26/-0.25	+0.32/-0.29	30m	Clear
RPU19/26	19	3/4	26	510	35	8.340	84	+0.25/-0.25	+0.26/-0.24	30m	Clear
RPU25/33	25	1	33	410	28	12.270	118	+0.63/-0.64	+0.38/-0.39	30m	Clear

For use as a guide only

Pressures: Values stated are based on the short term burst pressure of polyurethane at 20°C. Any increase in temperature above 20°C will result in a decline in burst pressures

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Reinforced polyurethane is supplied coiled and tyre wrapped.

Unreinforced Polyurethane Tubing

Applications

Grease lines, sleeving, slurry transfer, fuel lines, metering pumps, control instrumentation, granule delivery and chemical lines.

Chemical Resistance

Polyurethane has a good resistance to most fuels, oils and greases and many other solvents, chemicals and gases.

Construction

Colex polyurethane tubing is manufactured from 100% ether polyurethane.

Temperatures

-30°C to +70°C. Occasional use up to 100°C. Brittle point: -70°C.



Food Use

The raw materials used are acceptable under FDA Regulations 175.105.

Shore A 90

Silicone, cadmium & plasticiser free

Hydrolysis resistant

Part Number	Nomir	Nominal ID		Kgs/30m	* Bend Radius	ID Tolerances	OD Tolerances	<u>Lengths</u> <u>Available</u>	Colours Available Ex Stock
	<u>(mm)</u>	<u>(ins)</u>	<u>(mm)</u>	<u>11g5/30111</u>	<u>(mm)</u>	<u>(mm)</u>	<u>(mm)</u>	Ex Stock	GOIGHTS FIVEHULDIC EX GLOCK
PU3/6	3	1/8	6	0.720	10	+0.18/-0.18	+0.25/-0.26	30m	Clear
PU5/8	5	3/16	8	1.030	17	+0.16/-0.17	+0.23/-0.28	30m	Clear
PU6/9	6	1/4	9	1.180	22	+0.17/-0.19	+0.25/-0.26	30m	Clear
PU6/12	6	1/4	12	2.850	19	+0.17/-0.18	+0.24/-0.27	30m	Clear
PU8/11	8	5/16	11	1.510	32	+0.15/-0.20	+0.25/-0.26	30m	Clear
PU8/14	8	5/16	14	3.510	26	+0.15/-0.20	+0.25/-0.26	30m	Clear
PU10/16	10	3/8	16	4.120	34	+0.16/-0.20	+0.26/-0.25	30m	Clear
PU13/19	13	1/2	19	5.340	48	+0.25/-0.25	+0.2/-0.30	30m	Clear

Unreinforced polyurethane is supplied coiled and tyre wrapped

Pressures: For pressure applications we recommend Colex reinforced polyurethane. Unreinforced polyurethane is NOT recommended for pressure applications.

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