

The conveyance of fluids in each field of industry is an important latent point. In order to enable rapid and sure conveyance, selection should be made from the TOYOX hose series according to the particular branch of industry, the type of fluid, and the purpose of use.

**TOYOX HOSES SELECTION TABLE**

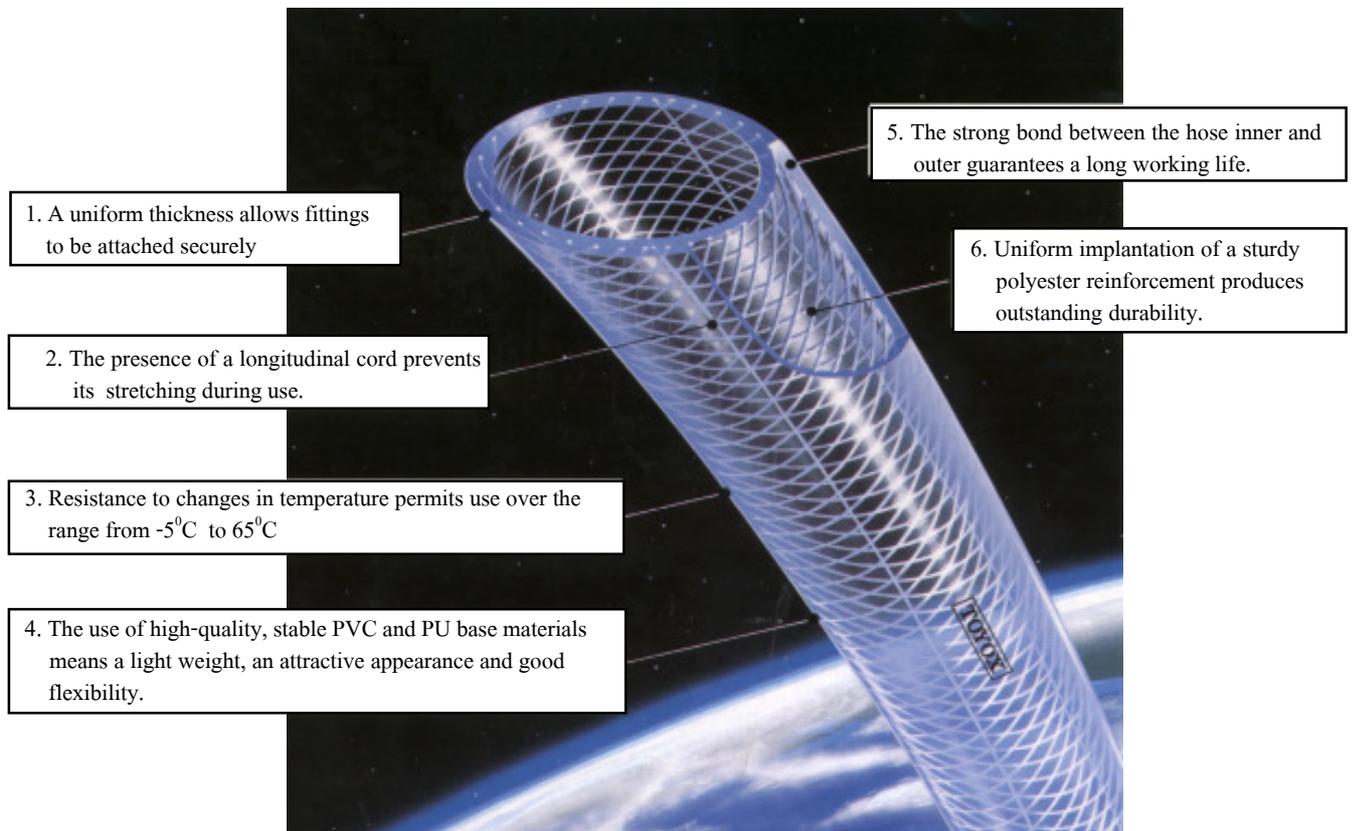
Recommend Fluids	Hose Type	Multi-Purpose		Compressed Air			Solvent	Fertilizer	
		TOYORON	SPRING	SUPERHIT	HIT	ARROW	ROCK	PAINT	SPRAY
Water		m	m	X	X	m	m	S	m
Compressed Air		m	m	u	u	u	u	S	m
Oil		m	m	m	m	m	m	S	S
Solvent		X	X	X	X	X	X	u	X
Chemical		m	m	S	S	m	m	S	u

u Most Suitable m Suitable s Passable X Unsuitable

Hose Properties	Light Weight	H H	H	H H	H H H	H	H H	H H H	H H
	Flexibility	H H	H	H H H H	H H	H H H	H H	H	H H H
	Pressure Resistance	H H	H	H H H	H H H	H H H	H H H	H H H	H H H H
	Heat Resistance	H	H H	H H	H H H	H H	H H	H H H	H H
	Abrasion Resistance	H H	H H	H H H	H H H H	H H H	H H	H	H H
	Transparent	H H	H H	-	-	-	-	H	-
	Vacuum Resistance	-	H H H	-	-	-	-	-	-

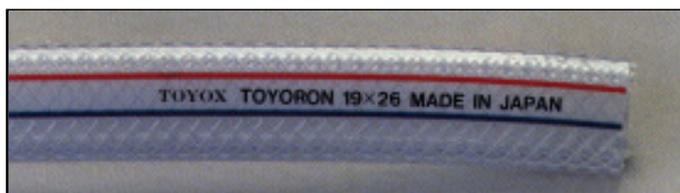
Excellent HHHH > HHH > HH > H Poor

**EVEN THOUGH BOTH ARE PLASTIC HOSES,  
THE TOYOX HOSES DIFFER HERE !**



<b>Mineral Acid</b>		Calcium Acetate	1	Hydrocarbon		<b>xKetone</b>	
Sulfurous Acid 10%RT	m	Calcium Hypochlorite	1	<b>xAliphatic Series</b>		Acetone	5
Hydrochloric Acid 20%RT	m	Calcium Nitrate	1	Asphalt	1	Chloroacetone	5
Hydrochloric Acid 38%RT	s	Calcium Hydroxide	1	Acetylene	1	Dichlohexane	5
Nitrohydrochloric Acid	5	Calcium Sulfide	1	Liquefied Petroleum Gas	s	Methylisobutylketone	5
Perchloric Acid	m	<b>xPotassium Compound</b>		Propane	1	Methylethylketone	5
Chromic Acid 25% 70°C	m	Potassium Chloride	1	Propylens	s	<b>xAmine/Nitrogen Compound</b>	
Chlorosulfonic Acid	5	Potassium Permanganate 5%RT	m	Butane	m	Acetamide	s
Hypochlorous Acid	m	Potassium Bichromate 10%RT	1	Gasoline	5	Aniline	5
Nitric Acid 30%RT	s	Potassium Hydroxide	1	Kerosene	m s	<b>Organic Acid</b>	
Hydrofluoric Acid 20%RT	s	Potassium Cyanide	1	Oil	s	Fomic Acid 25%RT	s
Fluorite Anhydride	5	Potassium Sulfate	1	Naphtha	s	Citric Acid	m
Sulfuric Acid 30%RT	m	<b>xSilver / Iron / Copper / NickelCompound</b>		Naphthenic Acid	m	Acetric Acid 10%RT	m
Sulfuric Acid 10% 70°C	5	Silver Nitrate	m	Fuel Oil	5	Acetic Anhydride	5
Phosphoric Acid 75%RT	m	Ferric Chloride	1	Hexane	5	Salicylic Acid	1
Phosphoric Acid 50% 70°C	s	Ferric Nitrate	1	Benzine	m	Hydrogen Cyanic Acid	m
<b>Inorganic Compound</b>		Ferric Sulfate	m	<b>xAromatic</b>		Oxalic Acid	m
<b>x Anmonia</b>		Cupric Chloride	m	Xylene	5	Stearic Acid	m
Anmonia	m	Copper Sulfate	1	Cresol	s	Lime Acid	5
Liquid Anmonia	m	Lead Acetate	m	Chloro Toluene	5	Lactic Acid	m
Anmonia Gas (sCold, 5 Heat)	s 5	Lead Nitrate	m	Styrene	5	<b>xOther Organic Compuond</b>	
Anmonia Water	m	Nickel Chloride	1	Tar	5	Monochloroacetic Acid	s
Anmonium Chloride	1	Nickel Acetate	m	Toluene	5	Lacquer	5
Anmonium Nitrate	m	Nickel Sulfate	1	Naphthalene	m	Creosote Oil	5
Anmonium Carbonate	1	<b>xBarium Compound</b>		Hydroquinone	m	Grease	5
Anmonium Sulfate	1	Barium Chloride	1	Phenol	5	Mineral Oil	s
<b>xSoda</b>		Barium Hydroxide	1	Benzene	5	Lubricating Oil	s
Sodium Sulfite	m	Barium Sulfide	m	Monochlorobenzene	5	Silicon Grease	s
Sodium Peroxide	m	Barium Sulfate	1	<b>xHalogenide Derivative</b>		Silicone Oil	s
Sodium Hydroxide 30%RT	m	<b>xMagnesium Compound</b>		Chloroform	5	<b>xVegetable Oil,etc.</b>	
Sodium Hydroxide 5%70°C	s	Magnesium Chloride	1	Titanium Carbon	5	Linseed Oil	s
Sodium Cyanide	1	Magnesium Hydroxide	1	Trichloroethylene	5	Olive Oil	s
Sodium Bicarbonate	1	Magnesium Sulfide	1	Ethylene Dichloride	5	Tung Oil	m
Sodium Nitrate	1	<b>xOther Compound</b>		Methylene Dichloride	5	Bean Oil	s
Salt	1	Mercuric Chloride	m	Perchloroethylene	5	Turpentine Oil	m
Soda Ash	1	Mercuy	1	Chlorine Compound	5	Corn Oil	s
Sodium Thiosulfate	1	Carbonic Acid	m	<b>Alcohol / Ether / AldehydeKetone</b>		Pineapple Oil	5
<b>xZinc Compound</b>		Arsenic Acid	m	<b>xAlcohol</b>		Castor Oil	s
Zinc Chloride	1	Boric Acid	m	Amyl Alcohol	s	Cottonseed Oil	s
Zinc Acetate	1	Alum	1	Isoprophy Alcohol	5	Palm Oil	s
Zinc Sulfide	1	Hydrogen Peroxide 30%RT	m	Ethyl Alcohol	5	Salt Water	1
<b>xAluminum Compound</b>		Hydrogen Peroxide 5%50°C	m	Ethylene Glycol	5	Vinegar	m
Aluminum Chloride	m	<b>xGaseous Bodies</b>		Glycerine	s	Vapor/Steam	5
Aluminum Nitrate	1	Sulfuruos Acid Gas	1	Thio Alcohol	5	Soapy Water	1
Aluminum Sulfate	m	Liquid Chlorine	5	Buthl Alcohol	5	Natural Gas	1
Aluminum Sulfate	1	Chlorine Gas	s	Methyl Alcohol	5	Water	1
<b>xSulfur Compound</b>		Ozone	m	<b>xEther</b>		Lard(Animal Oil)	s
Sulfur	m	Oxygen	1	Diethy Ether	5	Lard	s
Thionic Chloride	5	Hydrogen	1	Cellosolve	5	1 Excellent : has almost no influence	
Carbon Bisulfade	5	Nitrogen	1	<b>xAldehyde</b>		m Good : has a little influence	
<b>xCalcium Compound</b>		Carbonic Acid Gas	1	Asetaldehyde	s	s Possible : preferably not to be used	
Calcium Chloride	1	Hydrogen Sulfide	m	Formalddehyde 40%RT	m	5 Failure : not suitable for use	

## TOYORON HOSE MULTI-PURPOSE GRADE



### PVC POLYESTER CORD REINFORCED HOSE

**WATER :**

Factory Water Supply And Drainage Line

**COMPRESSED AIR :**

Piping For Pneumatic Equipment

**OIL :**

Supply Line For Lubricating Oil

**CHEMICAL :**

Piping For Factory Chemicals

**Features**

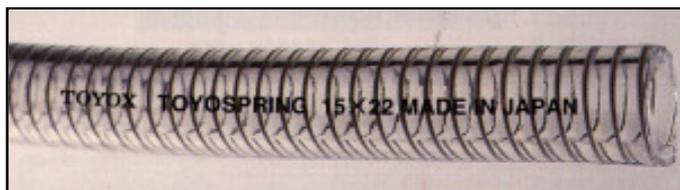
- Light weight (40% lighter than Rubber Hose)
- Clean and transport
- High flexibility and easy to handle
- Working pressure can range from 3 to 10 kgf/cm<sup>2</sup> depending on size
- Burst pressure is 4 times of working pressure at temp. 20°C
- Bending radius is 5 times of ID.
- Working temp, is from 0°C to 65°C
- If chemicals is used, please refer to Chemical Resistance Chart in the appendix.

**Precautions for use :**

- Do not use for Oxygen and Acetylene in welding site.
- The sharp top of the serrated nipples should be rounded off.
- The steel wire should not be tightened as hose band.

Series No.	Size (inch)	Hose Size I.D. X O.D. MM.		Lengh M/Roll	Working Pressure kgf/cm <sup>2</sup>	Burst Pressure		Note
						at 20 <sup>0</sup> C	at 60 <sup>0</sup> C	
<b>T004</b>	5/32	4	9	100	10	77	30	
<b>T006</b>	1/4	6	11	100	10	73	30	
<b>T008</b>	5/16	8	13.5	100	10	65	28	
<b>T009</b>	3/8	9	15	100	10	56	25	
<b>T010</b>	13/32	10	16	100	10	56	25	
<b>T012</b>	1/2	12	18	100	8	52	23	
<b>T015</b>	5/8	15	22	100	8	46	21	
<b>T019</b>	3/4	19	26	100	6	38	20	
<b>T022</b>	27/32	21.5	29	100	6	35	18	
<b>T025</b>	1	25	33	50	6	30	18	
<b>T032</b>	1-1/4	32	41	50	4	23	15	
<b>T038</b>	1-1/2	38	48	50	4	19	13	
<b>T045</b>	1-3/4	45	56	40	4	17	10	
<b>T050</b>	2	50	62	40	3	15	13	
<b>T063</b>	2-1/2	63	80	20	3	13	11	
<b>T075</b>	3	75	92	20	3	12	10	

## TOYOSPRING HOSE MULTI-PURPOSE GRADE



### PVC SPRING WIRE REINFORCED HOSE

**OIL :**

Supply Line For Lubricating Oil

**WATER :**

Factory Water Supply And Drainage Line

**POWDER :**

Factory Suction line For Powder & Granul

**CHEMICAL :**

Piping For Factory Chemicals

**Features**

- Can be used as vacuum hose
- Superior to abrasion resistance
- Good resistance to outside squash.
- Even if squashed, can be restored to original to shape with a hammer.
- Superior to heat resistance.
- Burst pressure is 4 times of working pressure.
- Longer life time compared with SPRING HOSE
- Natural transparent make easier to see inside fluid
- Measuring number indicate system make easier to control the stock.
- Please refrain using from Kerocine and Gasoline.
- If chemicals is used, please refer to Chemical Resistance Chart in the appendix.

Series No.	Size (inch)	Hose Size I.D. X O.D. MM.		Lengh M/Roll	Working Pressure kgf/cm <sup>2</sup>	Burst Pressure		Note
						at 20 <sup>0</sup> C	at 60 <sup>0</sup> C	
						kgf/cm <sup>2</sup>		
<b>S006</b>	1/4	6	11	100	8	70	16	
<b>S008</b>	5/16	8	13.5	100	8	60	16	
<b>S009</b>	3/8	9	15	100	8	55	15	
<b>S012</b>	1/2	12	18	100	5	40	15	
<b>S015</b>	5/8	15	22	100	5	35	13	
<b>S019</b>	3/4	19	26	50	4	30	12	
<b>S025</b>	1	25	33	50	4	25	10	
<b>S032</b>	1-1/4	32	41	40	3	20	9	
<b>S038</b>	1-1/2	38	48	40	3	18	8	
<b>S050</b>	2	50	62	40	3	14	8	
<b>S063</b>	2-1/2	63	80	20	2	12	7	
<b>S075</b>	3	75	92	20	2	11	7	
<b>S090</b>	3-1/2	90	108	10	2	9	5	
<b>S100</b>	4	100	118	10	2	7	5	

## ROCK HOSE COMPRESSOR AIR SPECIALIZED HOSE



### PVC POLYESTER CORD REINFORCED HOSE

#### PNEUMATIC LINE

- Civil Engineering
- Building Construction
- Quarry
- Factory line

#### Application

- Civil Engineering.
- Road and bridge construction
- Tunnel and dam construction
- Subway construction
- Quarry
- Building construction
- Sewage piping works.
- Seabed drilling
- Shipbuilding yard
- Construction equipment

#### Features

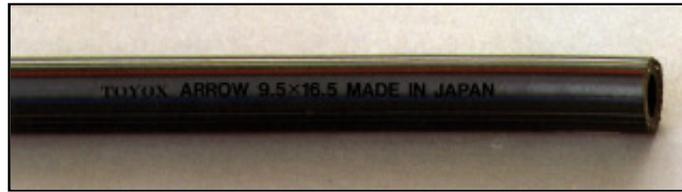
- Light weight (40% lighter than Rubber Hose)
- Superior to abrasion resistance (10 times stronger than Rubber Hose)
- Good resistance to effects of oil  
(No stichness or maceration of the hose due to oil, thus ensuring a long usable life)

#### Precautions for use

- Do not allow to make direct contact with heated objects such as welding sparks.
- The steel wire should not be tightened as hose band.

Series No.	Size (inch)	Hose Size I.D. X O.D. MM.		Lengh M/Roll	Working Pressure kgf/cm <sup>2</sup>	Burst Pressure		Note
						at 20 <sup>0</sup> C	at 60 <sup>0</sup> C	
						kgf/cm <sup>2</sup>		
<b>R009</b>	3/8	9.5	16	100	17	100	75	
<b>R012</b>	1/2	12.5	20	100	17	100	70	
<b>R019</b>	3/4*	19	27	100	15	90	60	
<b>R025</b>	1	25	33	100	12	60	40	
<b>R032</b>	1-1/4	32	43	50	10	50	35	

## ARROW HOSE PNEUMATIC SPECIALIZED HOSE



### HIGH GRADE PVC POLYESTER CORD REINFORCED HOSE

#### PNEUMATIC LINE

- Assembly Factory Air Tool
- wood Works-Metal Works
- House Spray Painting

#### Features

- Light weight (40% lighter than Rubber Hose)
- Flexible and easy to handle.
- Superior to abrasion resistance (10 times stronger than Rubber Hose)
- Bending radius is 5 times of ID.
- No stickness or maceration of the hose due to oil
- Airtight with the fitting is very good, thus there is no air leakage.

#### Precautions for use:

- Working Temperature is from  $-10^{\circ}\text{C}$  -  $65^{\circ}\text{C}$
- Do not use for Oxygen and Acetylene in welding site.

Series No.	Size (inch)	Hose Size I.D. X O.D. MM.		Lengh M/Roll	Working Pressure kgf/cm <sup>2</sup>	Burst Pressure		Note
						at 20 <sup>0</sup> C	at 60 <sup>0</sup> C	
						kgf/cm <sup>2</sup>		
A006	1/4	6.5	13	100	10	90	54	
A007	9/32	7	13.5	100	10	85	50	
A008	5/16	8	15	100	10	80	50	
A009	3/8	9.5	16.5	100	10	75	45	
A012	1/2*	13	21.5	100	10	70	43	