

الشركة المتخصِّصة للصِّناعات البلاستيكيِّـة

Specialized Co. For Plastic Industries

(الصغيَّر و مرَّار)



sandmplastic.com

Specialized Co. For Plastic Industries

الشركة المتخصَّىة للصِّناعات البلاستيكيِّـة





Founded in 1976, Specialized Co. for plastic industries was established under the name of Soghayyir & Marrar (S&M), with its headquarters and principal manufacturing site located in the heart of Jordan, Amman.

The company has been the pioneer in:

- UPVC Pipes & fittings manufacturing.
- HDPE Pipes & fittings production.
- CPVC Pipes & fittings Production.
- Corrugated HDPE Pipes & fittings.
- Solvent Cements and Pipe joining materials.
- Plastic Manholes and SMC Manhole Covers.
- Infrastructure supplies and accessories.



Our Expertise

Years of experience have contributed towards our ranking as a major influence in the plastics industry.

At the Specialized company we provide products, solutions, services and the necessary technical back-up to our clients.

We are a well formed team of specialized engineers and professionals who have the expertise in every critical area of plastic production and development.



Our Commitment

Every time we open our doors we continue a commitment that has been growing since 1976; a happier customer and a satisfied client. We believe that we are not number one but you are.



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The right product

Chlorinated Polyvinyl chloride (CPVC) has become an important engineering thermoplastic due to its relatively low cost, high glass transition temperature, high heat distortion temperature, chemical inertness, and outstanding mechanical, dielectric, flame and smoke properties.



The professional choice

S&M CPVC is the result of extensive research and development to give contractors what they asked for a tough pipe that will handle the demand of today's fast track jobsites at high standards manufacturing specifications and most importantly a product completely nontoxic to be used in potable water.

All of this made S&M CPVC is the right professional choice for today hot & cold water distribution (HCWD) system.



Features and benefits

- Proven Hot Water performance upto 93 C.
- Safe for drinking water and human health.
- No corrosion from oxygen permeation.
- Low microbial growth.
- Chemical resistance.
- Unaffected by chlorine in the water supply.
- Fire Safety.
- Tough, rigid and high impact resistance material.
- Fast, easy and cost effective installation.
- Low thermal expansion and conductivity.
- Guaranteed for 40 Years.

CPVC advantage over Copper

- No contamination of water supply due to corrosion by products.
- Meets third party (NSF, CSTB, OVGW, WRC, TSE) requirements for potable water safety .
- Price stability.
- Eliminates electrolysis.
- Long term product performance (50+years)
- Superior insulation reduces heat loss and condensation problems.
- Reduced water hammer, quieter than copper.
- Full bore flow.
- Eliminates scale and corrosion problems.
- Reduce job site theft loss.
- Elimination of torch use.
- Straight, professional appearance.

CPVC advantage over Polypropylene

- Same flow rate with smaller pipe size
- Ease of installation.
- (overhead lines, confined spaces)
- No need for expensive electrical tools and source.
- Lower thermal expansion.
- Wider support spacing, less "looping" of pipe.
- Less heat loss.
 Chemical resistance to acids and alkalis.
- Low bacteria build up.No oxygen permeation to corrode metal compo-
- nents
 Low flame spread.
- Low smoke generation
- Self-extinguishing.
- No flaming drips.

Page 1

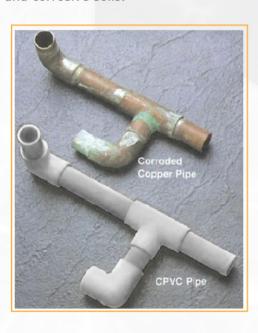
Specialized Co. For Plastic Industries



S&M CPVC - Water Purity Pledge:

CPVC plumbing systems are approved for potable water in a wide range of countries including USA, Canada, UK, Germany, France and the Netherlands amongst others.

S&M CPVC doesn't break down - even under the harshest of water conditions. So there are none of the purity worries from corrosion of metal pipe of soldered joints. S&M keeps pure water pure. Even after years of use in the most aggressive conditions, Our CPVC pipes won't corrode, standing up to low pH water, coastal salt air exposures and corrosive soils.





Burning Resistance:

S&M CPVC will not sustain burning. It must be forced to burn due to its very high Limiting Oxygen Index (LOI) of 60. Thus, in air CPVC does not support combustion. No flaming drips, does not increase the fire load, low flame spread and low smoke generation.

LOI is the percentage of oxygen needed in an atmosphere to support combustion. Since Earth's atmosphere is only 21% oxygen, S&M CPVC will not burn unless a flame is constantly applied and stops burning when the ignition source is removed. Other materials will support combustion due to their low LOI.



- initially when torch is applied



CPVC- After torch is removed



Other Plastics
- initially when torch is applied



Other Plastics
- After torch is removed

CPVC Pipes Dimensions and Pressure ratings:

ASTM F441 Schedule 80

Naminal Dina	Mini	mum	Max	Maximum	
Nominal Pipe Size	Outside Diameter	Wall Thickness	Water Pressure	Water Pressure	
(in)	(mm)	(mm)	(Psi) @ 73F	(Bar) @ 23C	
1/2"	21.34	3.73	850	58.6	
3/4"	26.67	3.91	690	47.6	
1"	33.40	4.55	630	43.4	
1 1/4"	42.16	4.85	520	35.9	
1 1/2"	48.26	5.08	470	32.4	
2"	60.33	5.54	400	27.6	
2 1/2"	73.02	7.01	420	28.9	
3"	88.9	7.62	370	25.5	
4"	114.3	8.55	320	22.1	
6"	168.27	10.97	280	19.3	

Pressure rating applies for water at 23 C. For temperature greater than 23 C check derating factors.

ASTM F441 Schedule 40

Nominal Pipe	Minin	num	Maxii	mum
Size	Outside Diameter	Wall Thickness	Water Water Pressure Press	
(in)	(mm)	(mm)	(Psi)	(Bar)
1/2"	21.34	2.77	600 41.3	
3/4"	26.67	3.38 3.56	480 33.0 450 31.0 370 25.5 330 22.7 280 19.3	
1"	33.40			
1 1/4"	42.16			
1 1/2"	48.26			
2"	60.33	3.91		
2 1/2"	73.02	5.16	300 20.6	
3"	88.9	5.49	260	17.9
4"	114.3	6.02	220	15.1
6"	168.27	7.11	180	12.4

Pressure rating applies for water at 23 C. For temperature greater than 23 C check derating factors.





Temperature Derating Factor:

Working Te	Working Temperature							
F	С	Pipe Derating Factor						
73 - 80	23 - 27	1.00						
90	32	0.91						
100	38	0.82						
120	49	0.65						
140	60	0.50						
160	71	0.40						
180	82	0.25						
200	93	0.20						

Size D	Product Image
1/2" 3/4" 1" 1-1/4" 1-1/2" 2"	
1/2" 3/4" 1" 1-1/4" 1-1/2" 2"	and the second s
1/2" 3/4" 1" 1-1/4" 1-1/2" 2"	
1/2" 3/4" 1" 1-1/4" 1-1/2" 2"	
	1/2" 3/4" 1" 1-1/4" 1-1/2" 2" 1/2" 3/4" 1" 1-1/4" 1-1/2" 2" 1/2" 3/4" 1" 1-1/2" 2" 1/2" 3/4" 1" 1-1/4" 1-1/2" 1-1/4" 1-1/4" 1-1/4" 1-1/4" 1-1/4"

Description	Size D	Product Image
Female Adaptor Brass	1/2 * 1/2" 3/4 * 1/2" 3/4 * 3/4" 1 * 1" 1-1/4 * 1-1/4" 1-1/2 * 1-1/2" 2 * 2"	
Male Adaptor Brass	1/2 * 1/2" 3/4 * 1/2" 3/4 * 3/4" 1 * 1" 1-1/4 * 1-1/4" 1-1/2 * 1-1/2" 2 * 2"	
Double Socket	1/2" 3/4" 1" 1-1/4" 1-1/2" 2"	
Socket Union	1/2" 3/4" 1" 1-1/4" 1-1/2" 2"	
Reducer	3/4 * 1/2" 1 * 3/4 1-1/4 * 1" 1-1/2 * 1-1/4" 2 * 1-1/2"	
Bridge	1/2" 3/4"	4279

Step over bend



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Description	Size D	Product Image
Reduced Tee	3/4 * 1/2" 1 * 1/2" 1 * 3/4"	
Reduced Elbow 90	3/4 * 1/2" 1 * 1/2" 1 * 3/4"	
Threaded Tee	1/2 * 1/2" 3/4 * 1/2" 3/4 * 3/4" 1 * 1"	
Threaded Elbow 90	1/2 * 1/2" 3/4 * 1/2" 3/4 * 3/4" 1 * 1"	
Flange Adapter	1/2" 3/4" 1" 1-1/4" 1-1/2" 2"	

Joining S&M CPVC Tubing and fittings



Description:

- Heavy bodied, Medium set CPVC solvent cement
- Suitable for use on pipes up to 12" in diameter
- Good gap filling properties
 NSF & UPC Listed for use on hot (83°C) and cold potable water
- Can be used for DWV, sewer pipe installations & industrial piping systems
- Viscosity: Min 1600 cps @ 23°C Non Low VOC product
- Exceeds ASTM D-2846 and F-493



Description:

E-Z Weld Pipe Cleaner is a special blend of solvents formulated to clean CPVC Pipes & Fittings, all schedules and all diameters, prior to applying cement. This Pipe Cleaner will effectively remove oils, dirt, grease and other foreign matter. It is very important that the surface of pipes and fittings is clean for a strong leak proof joint.



ISO 9000



ASTM D-2564







ASTM F-493

NSF

IAPMO (UPC)



Thermal Expansion

CPVC Performance



Thermal Expansion

Like all piping material, S&M CPVC expand when heated and contract when cooled. CPVC piping (regardless of pipe diameter) will expand 7.5cm per 30m length for a 40 C temperature change. The stresses developed in CPVC pipes are generally much smaller than those developed in metal pipes, because of the difference in elastic modulus. Therefore, expansion loop requirements are not significantly different than those recommended for copper tubing.

Generally thermal expansion can be accommodated with one of those main methods:

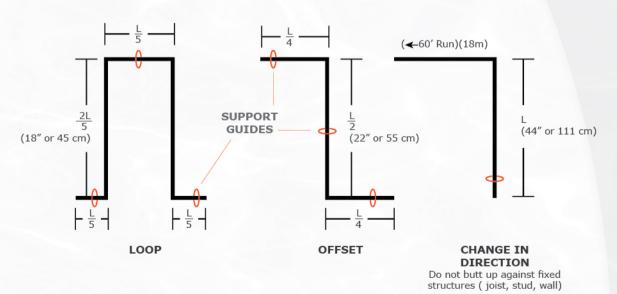
- 1) Expansion loops.
- 2) Offsets.
- 3) Change in direction.

The following chart can be used to determine expansion and offset lengths.

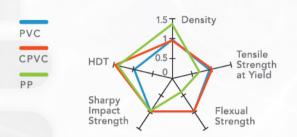
Expansion loop length in (cm) for 44C Temperature change

	Length of run in meters					
Nominal Size	6	12	18	24	30	
1/2"	63	91	111	129	142	
3/4"	71	101	124	142	160	
1"	81	114	140	140 160 1		
1 1/4"	91	127	155	180	200	
1 1/2"	96	137	167	193	216	
2"	106	152	188	216	241	

Example: Pipe size = 1/2" Length of run = 18mL = 111 cm (from table)

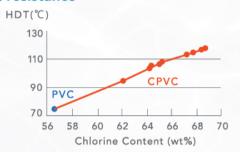


Superior mechanical strength



CPVC can be used for hot-water supply pipes up to 90°C, and it boasts high tensile strength even under high temperatures.

Heat resistance

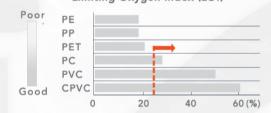


CPVC's heat resistance is improved as a result of adding chlorine.

*HDT: Heat Deflection Temp.

Superior flame resistance

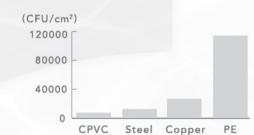
Limiting Oxygen Index (LOI)



CPVC is a self-extinguishing resin, and so compared to other plastic ingredients it is a highly flame resistant, low smoke-producing material.

*LOI is the percentage of oxygen needed in the atmosphere to support the combustion of a material Source: Flammability Handbook for Plastics. 5th edition, C.J. Hildado, Technomic Publishing, 1998

Superior from a hygiene perspective



When compared to other pipe material products, CPVC inhibits bacterial growth the most (no bacterial growth in 120 days in water piping).

*Based on the study of Bonn University in the year 1989 "CPVC Piping supports the lowest bacter growth compared with traditional piping systems" – Dr. George Tuschewitzki *Source: Privatdozent am Hygiene-Institut der Universitat Bonn; 23.10.1989

STANDARD SPECIFICATION

	Unit	Test Method	Standard	Pipe Grade	Fitting Grade
Suitable Application	-	-	-	Pipe	Fitting, Valve
Color	-	Visual Check	-	Grey / Cream	Grey / Cream
Figure	-	-	-	Powder	Pellet
Cell Classification	-	ASTM D1784	-	23447	23447
Specific Gravity	g/cm³	ASTM D792	-	1.5	1.5
Volatiles	wt%	ASTM D3030	-	<0.3	<0.3
Heat Deflection Temp.	°C	ASTM D648	>100	109	106
Vicat Softening Temp.	°C	ISO 306	-	111	107
Tensile Strength	MPa	ASTM D638	>48.3	55	52
Tensile Modulus of Elasticity	MPa	ASTM D638	>2,480	2,650	2,800
Elongation	%	ASTM D638	-	40-60	40-60
Impact Strength (Izod)	J/m	ASTM D256	>80.1	170	100

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Chemical Resistance Chart

Chemical Resistance Chart



CHEMIICAL	Temper 23°c	ature 82°c	CHEMIICAL	Tempera 23°c	ature 82°c	CHEMIICAL	Tempera 23°c		CHEMIICAL	Tempera 23°c	ature 82°c
Acetaldehyde	N	N	Lead Chloride	R	R	Bromine	N	N	Pine Oil	N	N
Acetic Acid, up to 10%	R	R	Lead Sulfate	R	R	Bromobenzene	N	N	Plating Solutions	R	R
Acetic Acid, greater up to 10%	С	C	Lemon Oil	N	N	Bromotoluene	N	N	Polyethylene Glycol	N	N
Acetic Acid, Glacial	N	N	Limonene	N	N	Butaool	C	С	Potassium Acetate	R	R
Acetic up to 5%	R	R	Linseed Oil	С	С	Butyl Carbitol	N	N	Potassium Bicarbonate	R	R
Acetone.greater than 5%	C	C	Lithium Sulfate	R	R	Butyl Cellosolve	N	N	Potassium Bichramate	R	R
Acetone.pure	N	N	Barium Sulfate	R	R	Butyric Acid, up to 1%	R	R	Potassium Bisulfate	R	R
Acrylonitrile	N	N	Lubricating Oil.ASTM 1.2.3	R	-	Butyric Acid. greater than 1%	C	C	Potassium Bromate	R	R
Adipic Acid, sat'd water	R	R	Magnesium Carbonate	R	R	Cadmium Acetate	R	R	Potassium Bromide	R	R
Alcohols	C	C	Magnesium Citrate	R	R	Cadmium Chloride	R	R	Potassium Carbonate	R	R
Allyl Alcohols	C	C	Magnesium Fluoride	R	R	Cadmium Sulfate	D	R	Potassium Chlorate	D	R
Alum, all varieties	D	R	Magnesium Hidroxide	R	R	Calcium Acetate	R	R	Potassium Chromate	R	R
Aluminium Acetate	IX.	R	Magnesiun Salts, inorganic	R	R	Calcium Bisulfite	R			R	R
Aluminium Chloride	R	R	Maginesium Oxide	R	R	Calcium Carbonate	R	R R	Potassium Cyanida	R	R
	, R		Magnesium Sulfate	D	R	Calcium Chlorate			Potassium Cyanide Potassium Dichromate	R D	
Aluminium Fluoride	K	R	Maleic Acid, 50%	I.	R		R	R		K	R
Aluminium Nitrtate	R	R	Maga11ese Sulfate	R D		Calcium Chloride	R	R	Potassium Ferrocyanide	R	R
Aluminium Sulfate	R	R		K	R	Calcium Hypochlorite	R	R	Potassium Fluoride	R	R
Amines	N	N	Mercuric Cyanide	R	R	Calcium Nitrate	R	R	Potassium Hydroxide	R	R
Ammonia	N	N	Mercuric Sulfate	R	R	Calcium Oxide	R	R	Potassium Hypochlorite	R	R
Ammonia Benzoate	R	R	Mercurrous Nitrate	R	R	Calcium Sulphate	R	R	Potassium Nitrate	R	R
Ammonium Bifluoride	R	R	Mercury	R	R	Caprolactam	N	N	Potassium Perborate	R	R
Ammonium Carbonate	R	R	Methanol, up to 10%	R	R	Caprolactone	N	N	Potassium Perchlorate. sat'd	R	R
Ammonium Chloride	R	R	Methanol, greater than 10%	C	С	Carbitol	N	N	Potassium Permanganate sat'd	R	R
Ammonium Dichromate	R	R	Methanol, pure	N	N	Carbon Dioxide	R	R	Potassium Phosphate	R	R
Ammonium Flouride	R	R	Methyl Cellosolve	N	N	Carbon Monoxide	R	R	Potassium Sulfate	R	R
Ammonium Hydroxide	N	N	Methyl Ethyl Ketone	N	N	Carbon Tetrachloride	N	N	Potassium Sulfide	R	R
Ammonium Metaphosphate	R	R	Methyl Formate	N	N	Carbonic Acid	R	R	Potassium Sulfite	R	R
Ammonium Persulfate	R	-	Methyl Isabutyl Ketone	N	N	Castrol Oil	С	С	Propanol, up tp 5%	R	R
Ammonium Phosphate	R	С	Methyl Methacrylate	N	N	Caustic Soda	R	R	Propanol, greater than 5%	C	С
Ammonium Sulfamate	R	R	Methylene Chloride	N	N	Cellosolve, all types	N	N	Propionic Acid, up to 2%	R	R
Ammonium Sulfate	R	R	Mineral Oil	R	-	Chloric Acid	R	R	Propionic Acid, greater than 2%	C	C
Ammonium Thiacyanate	R	R	Monoethanolamine	N	N	Chlorinted Water (Hypochlorite)	R	R	Propylene Dichloride	N	N
Ammonium Tartinate	R	R	Motor Oil	R	-	Chlorine, liquid	N	N	Propylene Glycol, up lo 25%	R	R
Amyl Acetate	N	N	Napthlene	N	N	Chlorine, trace in air	R	R	Propylene Glycol greatC!r than 25%	C	C
Amyl Alcohol	C	C	Nickel Acetate	R	R	Chlorine, wet gas	N	N	Propylene Oxide	N	N
Aniline	N	N	Nickel Chloride	R	R	Chlorobenzene	N	N	Sea Water	D	R
Antimony Trichloride	D D	R	Nickel Nitrate	P	R	Chloroform	N N	N	Silicic Acid	D	IX
Aqua Regia	R	N	Nitric Acid, up to 25%	P	R	Chlorinated Solvents	IV NI	N	Silicone Oil	R D	
			Nitric Acid, 45 to 25 %	R	C		IV D			R	- D
Aromatic Hydrocarbons	N	N	Nitric Acid, 23-33% Nitric Acid, greater than 35%	R	N	Chromic Acid, 40% (conc.]	R	R	Silver Chloride	R	R
Barium Carbonate	R	R	Nitric Acid, greater trial 35%	I.		Citric Acid	R	R	Silver Nitrate	R	R
Barium Chloride	R	R		K	N	Citrus Oils	N	N	Silver Sulfate	R	R
Barium Hydroxide	R	R	1- Octanol	C	N	Coconut Oil	C	С	Soaps	R	R
Barium Nitrate	R	R	Oils, edible	C	C	Copper Chloride	R	R	Sodium Acetate	R	R
Barium Sulfide	R	R	Oils,Sour Crude	N	N	Copper Cyanide	R	R	Sodium Arsenate	R	-
Beer	R	R	Oleum	N	N	Copper Fluoride	R	R	Sodium Benzoate	R	R
Beer Sugar Liquors	R	R	Oxalic Acid, sat'd	R	С	Copper Nittrate	R	R	Sodium Bicarbonate	R	R
Benzaldehyde	N	N	Oxygen	R	R	Corn Oil	С	С	Sodium Bichromate	R	R
Benzoic Acid sat'd in water	R	N	Ozonised water	R	-	Corn Syrup	R	R	Sodium Borate	R	R
Benzyl Alcohol	N	N	Palm Oil	C	С	Cottonseed Oil	С	С	Sodium Bromide	R	R
Benzyl Chloride	N	N	Paenut 0il	С	С	Creosale	N	N	Sodium Carbonate	R	R
Bismuth Carbonate	R	R	Perchloric Acid, 10%	R	-	Crotonaldehyde	N	N	Sodium Chlorate	R	R
Bleach, household (5% Cl)	R	R	Phenylhydrazine	N	N	Cumene	N	N	Sodium Chlorite	R	R
Bleach, indlustrial (15% Cl)	R	R	Phoshphoric acid	R	R	Cupric Fluoride	R	R	Sodium Chromate	R	R

CHEMICAL RESISTANCE CHART | R: Recommended | N: Not Recommended | C: Caution

CHEMICAL RESISTANCE CHART | R: Recommended | N: Not Recommended | C: Caution

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Chemical Resistance Chart

ELECTRICAL WATER HEATER - STAR



CHEMIICAL	Temperatur 23°c 82		CHEMIICAL	Temper 23°c	ature 82°0
Cyclohovano	N	N	Sodium Dichromate	D	В
Cyclohexane Cyclohexanol		N	Sodium Ferrocyanide	R R	R R
			•		
Cyclohexanone		N C	Sodium Fluoride	R	R
Detergents			Sodium Formate	R	R
Dextrose		R	Sodium Hydroxide	R	R
Dibulyl Phthalate		N	SodiumHypochlonte	R	R
Dibulyl Ethyl Phthalate		N	Sodium Iodide	R	R
Dichlorobenzene		N	Sodium Metaphosphate	R	R
Diethyfamine		N	Sodium Nitrate	R	R
Diethyl Ether		N	Sodium Perborate	R	R
Dill Oil		N	Sodium Perchlorate	R	R
Dimethylofrmamide		N	Sodium Phosphate	R	R
Distilled Water		R	Sodium Silicate	R	R
EDTA,Tetraisodium		R	Sodium Sulfide	R	R
Esters		N	Sodium Sulfite	R	R
Ethanol, Up to 5%		R	Sodium Thiosulfate	R	R
Ethers		N	Sodium Tripolyphosphate	R	R
Ethyl Acetate		N	Stannic Chloride	R	R
Ethyl Acrylate		N	Stannous Chloride	R	R
Ethyl Benzene		N	Stannous Sulfate	R	R
Ethyl Ether		N	Starch	R	R
Ethylene Bromide		N	Strontium Cloride	R	R
Ethylene Chloride		N	Styrene	N	N
Ethylene Diamine		N	Sugar	R	R
Ethylene Oxide		N	Salfamic Acid	R	R
Ferric Chloride		R	Sulfuric Acid, Fuming	N	N
Ferric Hydroxide		R	Sulfuric Acid 98%	R	N
Ferric Sulfate		R	Sulfuric Acid 85%	R	N
Ferrous Chloride		R	Sulfuric Acid 80%	R	R
Ferrous Hydroxide		R	Tall Oil	R	R
Ferrous Nitrate		R	Tannic Acid, 30%	R	-
Flourine gas		N	Tartaric Acid	R	-
Fluosilicic Acid, 30%		C	Terpenes	N	N
Formaldehyde	N	N	Tetrasodiumpyrophosphate	R	R
Formic Acid, up lo 25%		R	Texanol	N	N
Freons	С	C	Thionyl Chloride	N	N
Fructose	R	R	Toluene	N	N
Gasoline	N	N	Trichloroethytene	N	N
Glucose		R	Trisodium Phosphate	R	R
Glycol Ethers	N	N	Turpentine	N	N
Green Liquor	R	R	Urea	R	R
Halocarbon Oils	C	C	Vegetable Oils	С	C
Heptane	C	-	Vinegar	R	R
Hydrochloric Acid	R	R	Vinyl Acetate	N	N
Hydrochloric Acid, 36% (conc.)	R	С	Water, Deionized	R	R
Hydrochloric Acid, 30%		-	Water, Distilled	R	R
Hydrochloric Acid, 3%		С	Water, Salt	R	R
Hydrogen Sulfide, Aqueous		R	Water, Swimming Pool	R	R
Hypochlorous Acid		R	WD-40	С	С
Isopropanol		C	Xylene	N	N
Ketones		N	Zinc Acetate	R	R
Lactic Acid 25%		R	Zinc Carbonate	R	R
Lactic Acid 25%	1				

3 YEARS WARRANTY

Electrical water heater factory guarantee product (STAR) water heater against any manufaturing defect and the tank of any leakage for 36 months.

Design and Information

- STAR water heater is manufacured according Saudi and international specifications.
- Extra safety features(with two safety valves, lower and upper)
- High quality heating unit that reduces electricity consumption
- Easily controlled tempreture through italian quality heating thermostat
- The external cover painted by layer to resist the rust and weather factors.
- Insulation layer to preserve the temprature for longest possible period of time.
- Rust proof water intake and output pipes.

ضمان 3 سنوات

شركه مصنع سخانات المياه الكهربائية تضمن منتجها سخان (ستار) ضد الاخطاء الصناعية و الخزان الداخلي من اى تسرب و لمده 36 شهراً.

مواصفات المنتج

- السخان مصنع طبقاً للمواصفات السعوديه و العالميه.
 مميزات امان اضافيه (السخان مزود بصمام امان علوي وسفلي).
- يقلل السخان من استهلاك الكهرباء بوحدة تسخين عاليه الحمدة
- سهوله التحكم في درجه الحراره بثيرموستات ايطاليه عاليه الحددة
- الغطاء الخارجي مطلي بطبقه مقاومه للصدأ و العوامل الجوية.
- عازل حرارى لحفظ درجه حرارة المياه لاطول فترة ممكنة.
 - مواسير دخول وخروج المياه غير قابله للصدأ.









الوصف	100LITER	80LITER	50 Liter	30LITER	Description
الحجم بالليترات	100	80	50	30	Volume LITER
القطر / سم	450	450	450	450	DIAMETER M
الإرتفاع / سم	880	660	510	410	HEIGHT MN
الطاقة / فولن	127-220	127-220	127-220	127-220	POWER VOLTS
هيرتز	50/60	50/60	50/60	50/60	HZ
الطاقة / واط	1500	1500	1500	1200-1500	POWER WATTS