

TECHNICAL SPECIFICATION GUIDE

6" Wide Trench Drain System



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6" trench drain

Overview

Best in class pre sloped trench drain system. A market leader in design, materials quality, functionality and durability

Designed with strength and durability in mind. Built to last.

Smart materials and intuitive design make the 6" wide series a market leader in trench drain systems.

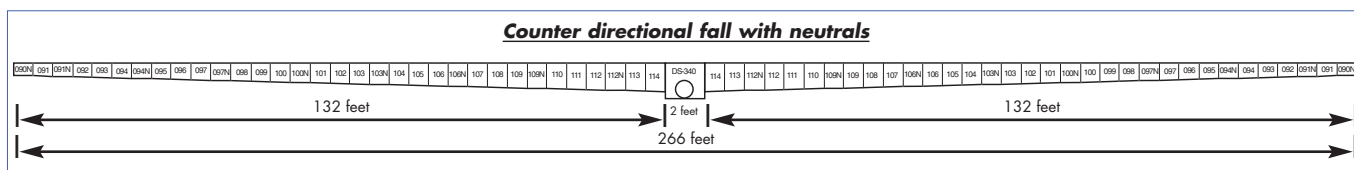
A high-quality structural foam poly-ethylene trench drain system with a built-in slope.

The system has been specifically designed and man-ufactured to ensure strength, structural integrity and durability while incorporating excellent hydraulic characteristics and chemical resistance.

An economical alternative to traditional polymer concrete trench drain systems, while offer-ing ease of installation.

The 6" hdpe series is the best choice for a variety of drainage solutions including driveways, parking areas, warehouses, loading docks, gas station entrances, and other areas for the interception and collection of surface run-off.

- Foundations • Tennis Courts • Swimming Pools • Driveways
- Dog Kennels • Garages • Marinas • Saunas and Spas
- Patios • Hot Tubs • Nurseries • Golf Courses • Gas Stations
- Loading Docks • Warehouses • Tracks



6" hdpe series

Product Specifications

Specify	A high quality , dependable, and best-in-class trench drain system.
Material	Manufactured from molded, structural foam HDPE with UV inhibitors.
Channel Sizes	48" length, 6" width, 3.998" to 12.062" inner depth range
Grate Sizes	24" length, 6" width
Grate Materials	Stainless Steel, Galvanized Steel, Cast Iron, Ductile Iron, Plastic (structural foam polyolefin
Grate Colors/Finishes	Metallic finishes, black, gray, white, green, sand, red
Load Class	Class A = 1-160 psi. Class B = 61-175 psi. Class C = 176-325 psi. Class D = 326-575 psi. Loads are based on encasing product in concrete and grate selection.
Strength	Material shall withstand a compressive strength of 2900 psi. Material tensile stress shall be 4550 psi and material flexural strength shall be 5800 psi.
Channel Weight Per Unit	Ranges between 7.452 lbs. for shallow channel to 16.06 lbs for deep channel.
Grate Weight Per Unit	Ranges between 2.92 lbs. for polyolefin to 16.0 lbs. for ductile iron.
Unique Product Features	Lower installed cost than polymer concrete. Fewer parts required.
Pre-Sloped Run Lengths	194 feet of continous slope 266 feet w/neutral sections added
Pipe Outlet Sizes	3", 4", 6", 8" Pipe.

Product Features

- Faster and easier to install. Low cost installation.
- Interlocking tongue and groove joints to secure alignment and ensure straight channel runs.
- DuraLoc™ integral joint lock prevents joint movement during installation.
- ProFit™ locking system locks grate to integral frame and supports product in shipping and installation.
- LeveLoc™ re-bar supports with integral protruding knob levels channel and grips rebar requiring fewer accessories.
- Various grating options; ADA compliant. Stainless steel, galvanized, cast iron, and plastic grates available.
- Decorative grates available in five different designs: weave, tile, brick, diamond, and slot.
- Blank grate inserts that eliminates use of plywood. Slides for overlapping of channel sections, and includes grate screws.
- Made of HDPE material for high durability. Durable, traffic rated up to H20 rating.
- 6" hdpe series installs in a snap without clamps or screws.
- Lower installed cost than polymer concrete. Fewer parts required.
- Light in weight, 6" hdpe series channels can be installed by one person.
- Counter directional fall up to 194 ft., up to 266 ft. with neutrals added.
- Bottom outlet on each channel section. System versatility that requires fewer accessories.
- Universal catch basin.

6" hdpe series

Material Composition

6" hdpe series Pre-Sloped Trench Drain

Shall be manufactured from molded, structural foam polyethylene with UV inhibitors and shall have a nominal outside top dimension of 6-5/8" (168.3mm). Trench drain shall have an inside nominal flow path width of 4" (101.6mm), and shall have a bottom radius of 2" (50.8mm) to facilitate sediment removal. The system shall include neutral and pre-sloped sections to provide variable trench depth as required by site conditions. Pre-sloped sections shall have a slope of 0.7%.

Channel and grating shall be designed to withstand loads up to Load class D (up to 575psi), when installed per the appropriate installation methods (see installation instructions and grating specifications included in the catalog). Channel grating shall be installed per manufacturer load rating recommendations, and shall be attached to the channel using stainless steel screws with the manufacturer-supplied Pro Fit™ locking system. The channel shall include LeveLoc™ integral re-bar supports located at 24" (60cm) intervals along each side of the channel to provide height adjustment using #4 re-bar (1/2") during installation. The channel shall have tongue and groove joints that ensure precise alignment during installation with snap-lock mechanisms to eliminate joint movement.

Molding Technique

Proudly manufactured in the U.S.A. in Lindsay, California. The channels are injection molded to exacting specifications to an exact temperature range that will not damage the molecular chain of the polymer. The use of high quality resins coupled with computerized manufacturing technologies guarantees the channel drain system will preserve in strength over time.

Testing Methods

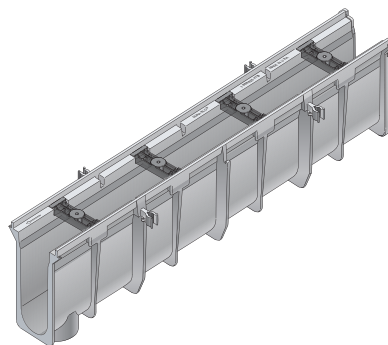
The channel and grates undergo a battery of tests with each production run, as is the process with all of the products manufactured. All of the manufacturing tests are conducted within the manufacturing cycle to assure a quality-finished product.

Compression Tests

Compression tests are used to determine the load strength of the channel drains. Material absorption rate shall not exceed .01%. Material shall withstand a compressive strength of 2900 psi. Material tensile stress shall be 4550 psi and material flexural strength shall be 5800 psi. The System has the ability to withstand freeze/thaw cycles and provide chemical resistance, including road salt.

A 6 $\frac{5}{8}$ " wide, 4-foot-long trench drain system with a built-in slope of 0.7%. Each channel section is molded of gray structural foam polyethylene with UV inhibitors and has a 4" inside diameter with a 2" radius bottom. The system consists of 4-foot channel sections including 24 pre-sloped channel sections and 9 neutral channel sections. The sloped channel sections enable the system to extend to a length of 96 feet with a continuous slope.

CHANNEL DRAINS



Part No.	Description	Flow Rate GPM	Min. Inner Depth	Max. Inner Depth	Min. Outer Depth	Max. Outer Depth	Wt. Ea. (lbs.)
0	3.99" Deep Neutral Slope Channel	75	3.998	3.998	5.354	5.760	7.45
1	3.99" to 4.34" Deep Slope Channel	75	3.998	3.998	5.690	5.770	7.52
1N	4.34" Deep Neutral Slope Channel	89	4.334	4.334	5.692	6.103	7.81
2	4.34" to 4.67" Deep Slope Channel	89	4.334	4.670	6.062	6.106	7.92
3	4.67" to 5.00" Deep Slope Channel	103	4.670	5.006	6.362	6.442	8.27
4	5.00" to 5.34" Deep Slope Channel	117	5.006	5.342	6.698	6.778	8.64
4N	5.34" Deep Slope Channel	131	5.342	5.342	6.700	7.111	8.93
5	5.34" to 5.68" Deep Slope Channel	131	5.342	5.678	7.034	7.114	8.99
6	5.68" to 6.01" Deep Slope Channel	145	5.678	6.014	7.370	7.450	9.36
7	6.01" to 6.35" Deep Slope Channel	159	6.014	6.350	7.706	7.786	9.74
7N	6.35" Deep Neutral Slope Channel	173	6.350	6.350	7.708	8.119	10.04
8	6.35" to 6.69" Deep Slope Channel	173	6.350	6.686	8.042	8.122	10.11
9	6.69" to 7.02" Deep Slope Channel	187	6.686	7.022	8.378	8.458	10.48
100	7.02" to 7.36" Deep Slope Channel	201	7.022	7.358	8.714	8.794	10.86
100N	7.36" Deep Neutral Slope Channel	215	7.358	7.358	8.716	9.127	11.16
101	7.36" to 7.69" Deep Slope Channel	215	7.358	7.694	9.050	9.130	11.23
102	7.69" to 8.03" Deep Slope Channel	229	7.694	8.030	9.386	9.466	11.60
103	8.03" to 8.37" Deep Slope Channel	243	8.030	8.366	9.722	9.802	11.98
103N	8.37" Deep Neutral Slope Channel	257	8.366	8.366	9.724	10.135	12.27
104	8.37" to 8.70" Deep Slope Channel	257	8.366	8.702	10.058	10.138	12.34
105	8.70" to 9.04" Deep Slope Channel	271	8.702	9.038	10.394	10.474	12.71
106	9.04" to 9.37" Deep Slope Channel	285	9.038	9.374	10.730	10.810	13.07
106N	9.37" Deep Neutral Slope Channel	299	9.374	9.374	10.732	11.143	13.39
107	9.37" to 9.70" Deep Slope Channel	299	9.374	9.710	11.066	11.146	13.4
108	9.70" to 10.05" Deep Slope Channel	313	9.710	10.046	11.402	11.482	13.83
109	10.05" to 10.38" Deep Slope Channel	327	10.046	10.382	11.738	11.818	14.20
109N	10.38" Deep Neutral Slope Channel	341	10.382	10.382	11.740	12.151	14.50
110	10.38" to 10.71" Deep Slope Channel	341	10.382	10.718	12.074	12.154	14.57
111	10.71" to 11.05" Deep Slope Channel	355	10.718	11.054	12.410	12.490	14.95
112	11.05" to 11.39" Deep Slope Channel	368	11.054	11.390	12.746	12.826	15.32
112N	11.39" Deep Neutral Slope Channel	382	11.390	11.390	12.785	13.158	15.6
113	11.39" to 11.72" Deep Slope Channel	382	11.390	11.726	13.082	13.162	15.69
114	11.72" to 12.06" Deep Slope Channel	396	11.726	12.062	13.418	13.498	16.06

Note: All dimensions are nominal. All weights are for shipping purposes only. Availability is subject to change.

609 Top Slot Drain Cover



Product type	Grates
Material	Galvanized Steel
Color	Steel
Length	48"
Width	6"
Height	5.75" (total) 4.25" (installed)
Weight	17.5000

P: 212-946-3798
info@trenchdrain.io

The catch basin with optional trash bucket also locks in with the same tongue and groove connection. For this system, you only need screws to secure the grates and cap off the outlets that aren't in use. Compared to installing a traditional concrete system, installing this plastic trench drain system is budget-friendly and fast.

Grate Width: 6" with thin reveal

Thickness: $\frac{3}{4}$ "

Sections: 24"



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info@trenchdrain.io

A Single Product Solution Offering Performance, Beauty and Safety

Low Profile, High Performance

Blends into any environment and offers excellent flow rates

Versatile Design

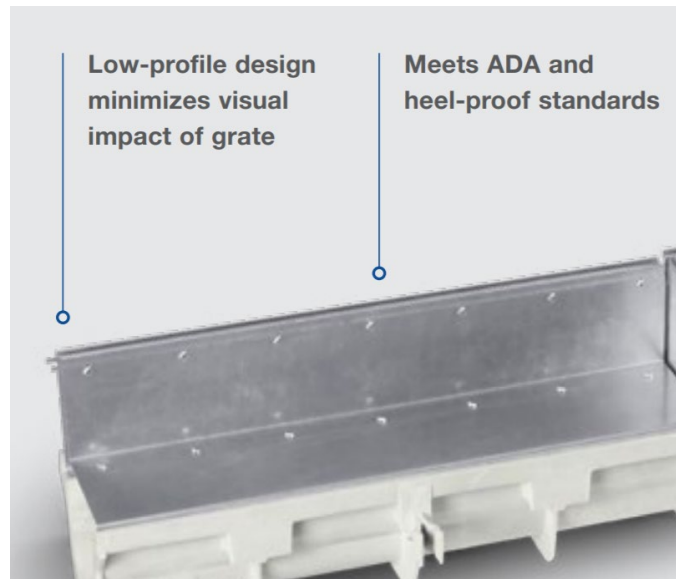
Meets both ADA and Heel-proof standards

Easy Maintenance

Available maintenance unit provides easy access to cleanout

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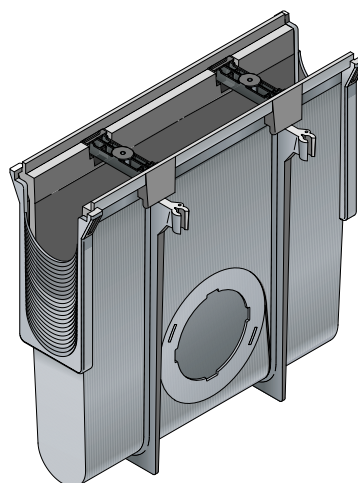
Top Slot



Width: 6" with thin reveal
Length: 24"
Height: 3/4"

CATCH BASIN

The 6" trench drain™ in-line catch basin is designed to fit all depth ranges of the trench drain sections. Catch basin inlets are designed to be sized as required to accept the 6" trench drain™ trench drain section. The 6" trench drain™ catch basin is 2 feet long and 2 feet deep with an outlet on both sides of the basin. One Universal Adapter Plug, one blank grate insert and two grate screws are included with each 6" trench drain™ in-line catch basin. The universal basin outlets are used to adapt the catch basin to 3", 4", 6" and 8" pipe.



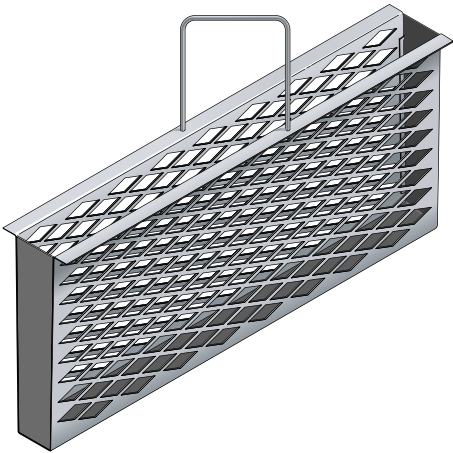
Part No.	Description	Color	Pkg. Qty.	Wt. Ea. (lbs.)	Product Class
	6" trench drain In-Line Catch Basin	Gray	1	12.00	25DS

Note: All dimensions are nominal. All weights are for shipping purposes only. Availability is subject to change.

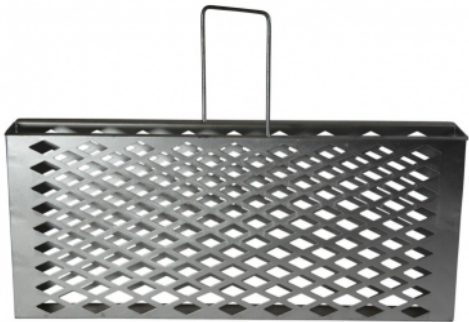


Trash Bucket is made to fit inside the 6" trench drain Catch Basin. It has a handle for easy removal to clean leaves and debris, which requires removal of the grate. Constructed of zinc plated steel, it is durable to climatic conditions.

TRASH BUCKET



Part No.	Description	Color	Pkg. Qty.	Wt. Ea. (lbs.)	Product Class
	Trash Bucket	Steel	1	5.0	25DS
Note: All dimensions are nominal. All weights are for shipping purposes only. Availability is subject to change.					



Chemical Resistance

The following results were derived from testing using standard procedures including ASTM D543 "Standard Test Method for Resistance of Plastics to Chemical Reagents." Actual results will vary for different applications depending on environmental conditions for each particular application and other modifying factors. The following table assumes ambient temperature of 75 degrees Fahrenheit.

The comparative information presented considers the environmental and stress-cracking tendencies of the polymeric material. Sunlight can be destructive because of its ability to cleave main chain bonds of polymers. When specifying plastic products for outdoor use, include the requirement for products with ultra-violet stabilizers to protect against deterioration and discoloration due to exposure to sunlight.

Chemical Resistance Guide

Chemicals	%	Plastic Materials @ max. Temp (°F) or Rating				Metals Rating			Flo Control Gaskets @ max. Temp (°F) or Rating		
		ABS	Polyolefin	Polystyrene	PVC	Brass	Cast Iron	Ductile Iron	EPDM	Buna-n	Viton
Acetic Acid	25	-	180	A	73	C	C	C	180	C	C
Acetic Acid	50	-	140	A	73	C	C	C	140	C	C
Acetic Acid	80	-	100	B	73	C	C	C	100	C	C
Acetone	-	-	73	C	C	A	A	A	130	C	C
Aluminum Chloride	Sat	-	180	A	140	C	C	C	210	70	150
Aluminum Fluoride	Sat	-	-	B	73	C	C	C	210	180	-
Aluminum Sulfate	Sat	-	180	B	140	C	C	C	210	200	150
Ammonium Acetate	Sat	-	73	B	140	C	-	-	140	-	-
Ammonium Chloride	Sat	-	180	A	140	C	C	C	210	180	A
Ammonium Hydroxide	10	-	180	B	225	C	-	-	210	70	A
Ammonium Sulfate	-	-	180	A	140	C	B	B	210	180	A
Amyl Alcohol	-	-	180	A	100	A	B	B	210	140	A
Barium Chloride	Sat	-	180	A	180	A	B	B	250	180	A
Barium Hydroxide	Sat	-	180	-	140	A	B	B	250	180	A
Benzene	-	-	C	C	C	A	A	A	C	C	A
Benzoic Acid	All	-	140	A	140	C	C	C	C	C	-
Borax	Sat	-	180	A	140	A	A	A	210	140	A
Boric Aid	Sat	-	180	A	140	B	B	C	210	140	A
Calcium Chloride	-	100	180	A	140	B	A	A	210	100	A
Calcium Hydroxide	-	-	180	-	140	C	C	C	210	140	A
Carbon Tetrachloride	-	-	C	-	73	A	C	C	C	C	A
Chlorine Gas (Dry)ppm	<150	-	C	B	120	C	B	A	C	C	B
Chlorine Gas (Wet) ppm	>150	C	C	B	120	C	C	C	C	C	B
Chlorinated Water ppm	<3500	-	-	B	140	C	-	-	B	C	B
Chlorinated Water ppm	>3500	-	C	B	C	C	-	-	C	C	B
Chromic Acid	10	C	150	B	140	C	C	C	70	C	B
Chromic Acid	30	C	150	B	140	C	C	C	C	C	-
Chromic Acid	40	C	150	B	140	C	C	C	C	C	-
Chromic Acid	50	C	C	B	75	C	C	C	C	C	-
Citric Acid	Sat	-	180	A	140	C	C	C	210	70	A
Copper Chloride	Sat	-	-	-	140	C	C	C	210	180	150
Copper Cyanide	-	-	-	-	140	C	C	C	210	180	-
Copper Nitrate	30	-	-	-	140	C	C	C	210	B to 70	-
Copper Sulfate	Sat	-	120	A	140	C	C	C	210	180	150
Creosote	-	-	-	-	73	B	A	A	C	73	B
Crude Oil	-	-	-	-	140	C	C	C	C	70	-
Dibutyl Ether	-	-	-	-	-	-	-	-	C	C	C
Diesel Fuel	-	-	-	-	140	A	A	A	C	70	-
Ethyl Alcohol	-	-	180	-	140	A	A	A	170	180	A

Chemical Resistance Guide

Chemicals	%	Plastic Materials @ max. Temp (°F) or Rating				Metals Rating			Flo Control Gaskets @ max. Temp (°F) or Rating		
		ABS	Polyolefin	Polystyrene	PVC	Brass	Cast Iron	Ductile Iron	EPDM	Buna-n	Viton
Ethyl chloride	Dry	-	73	C	C		A	A	B to 70	C	B
Ethylene Glycol	-	-	120	A	140	A	A	A	210	180	A
Ethyl Ether	-	-	C	-	C	-	-	-	C	C	-
Fatty Acids	-	-	120	-	140	C	C	C	C	140	-
Formic Acid	-	-	73	B	73	-	C	C	200	C	C
Fructose	-	-	-	-	140	-	A	A	175	140	-
Gasoline(Leaded)	-	-	C	C	C	A	A	A	C	70	A
Gasoline(Unleaded)	-	-	C	C	C	A	A	A	C	70	A
Glycerine	-	-	180	A	140	A	A	A	200	70	A
Hydrolc Oil	-	-	-	-	73	-	A	A	C	C	-
Hydrobromic Acid	20	-	120	-	140	C	C	C	140	C	-
Hydrobromic Acid	50	-	-	-	140	C	C	C	140	C	-
Hydrochloric Acid	<25	-	150	B	140	C	C	C	150	C	-
Hydrochloric Acid	37	-	150	B	140	C	C	C	150	C	-
Hydrocyanic Acid	10	-	73	-	140	C	C	C	200	70	-
Hydrogen Peroxide	50	-	150	A	140	C	C	C	100	C	A
Hydrogen Peroxide	90	-	-	A	140	C	C	C	C	C	B
Inks	-	-	-	-	-	C	C	C	-	70	-
Jp-4 Fuel	-	-	-	-	C	A	A	A	C	70	A
Kerosene	-	C	73	C	140	A	A	A	C	140	A
Lactic Acid	25	-	150	A	140	C	C	B	70	-	A
Lactic Acid	80	-	150	A	73	C	C	B	70	C	A
Lead Acetate	Sat	-	180	A	140	-	C	C	210	70	-
Linseed Oil	-	-	150	A	140	A	A	A	B to 70	180	A
Magnesium Chloride	Sat	-	180	A	140	B	C	C	170	180	150
Magnesium Sulfate	-	-	180	A	140	A	A	A	175	180	150
Mercury	-	-	150	A	140	C	A	A	210	140	A
Mineral Oil	-	70	120	-	140	A	A	A	C	140	A
Naphtha	-	B to 70	73	C	140	-	A	A	C	140	-
Nickel Sulfate	Sat	-	180	A	140	-	C	C	210	-	150
Nitric Acid	<10	73	140	B	140	C	C	C	70	C	B
Nitric Acid	30	C	73	B	140	C	C	C	70	C	B
Nitric Acid	40	C	C	B	100	C	C	C	C	C	B
Nitric Acid	50	C	C	B	100	C	C	C	C	C	B
Nitric Acid	70	C	C	B	73	C	C	C	C	C	B
Nitric Acid	fuming	C	C	C	C	C	C	C	C	C	B
Nitrous Acid	10	-	-	-	73	C	C	C	-	C	-
Oxalic Acid	50	-	180	A	140	-	C	C	150	C	A
Phosphoric Acid	10	-	180	A	140	C	C	C	140	70	A
Phosphoric Acid	50	-	180	A	140	C	C	C	70	C	A
Phosphoric Acid	85	-	180	A	140	C	C	C	70	C	-
Phosphorus Trichloride	-	-	-	-	C	-	-	-	-	C	-
Picric Acid	10	C	170	-	170	C	C	C	140	C	-
Potassium Bicarbonate	Sat	-	170	-	140	-	-	-	170	70	-
Potassium Bromide	-	-	180	A	140	-	C	C	170	180	-
Potassium Carbonate	-	70	140	A	280	B	A	A	170	180	-
Potassium Chlorate	-	-	180	A	140	-	A	A	140	B to 70	-
Potassium Chloride	-	-	180	A	140	A	B	B	210	180	A
Potassium Cyanide	-	-	-	-	140	C	B	B	140	180	A
Potassium Dichromate	Sat	-	-	B	140	-	B	B	170	180	-
Potassium Ferricyandide	-	-	-	-	140	-	B	B	140	70	-
Potassium Hypochlorite	-	C	C	-	140	-	-	-	C	C to 70	-
Potassium Iodide	-	-	73	-	-	-	-	-	140	100	-
Potassium Nitrate	-	-	-	A	140	B	B	B	210	180	-
Potassium Sulfate	-	-	180	A	140	B	A	A	210	140	A

Chemical Resistance Guide

Chemicals	%	Plastic Materials @ max. Temp (°F) or Rating				Metals Rating			Flo Control Gaskets @ max. Temp (°F) or Rating		
		ABS	Polyolefin	Polystyrene	PVC	Brass	Cast Iron	Ductile Iron	EPDM	Buna-n	Viton
Silver Cyanide	-	-	-	-	140	C	C	C	140	C	-
Sodium Acetate	Sat	-	180	A	140	-	B	B	170	C	-
Sodium Bicarbonate	-	70	180	-	140	B	A	A	250	180	A
Sodium Borate	Sat	-	73	A	-	-	B	B	140	70	-
Sodium Bromide	Sat	-	180	A	140	-	C	C	210	70	-
Sodium Chloride	-	-	180	A	140	A	B	B	140	140	A
Sodium Fluoride	-	-	185	A	140	-	C	C	140	70	-
Sodium Hydroxide	<10	140	180	A	140	-	-	-	180	140	A
Sodium Hydroxide	30	70	180	A	140	-	-	-	140	100	B
Sodium Hydroxide	50	70	180	A	140	-	-	-	140	C	B
Sodium Hydroxide	70	C	180	A	140	-	-	-	70	C	B
Sodium Nitrate	Sat	-	180	B	140	B	A	A	210	140	A
Sodium Peroxide	-	-	-	-	140	C	C	C	140	B to 70	A
Sour Crude Oil	-	-	-	-	140	-	A	A	C	C	-
Stannic Chloride	-	-	-	-	140	C	C	C	100	140	A
Stannous Chloride	15	-	-	-	140	C	C	C	70	140	A
Stearic Acid	-	-	73	A	140	-	-	-	C	140	A
Succinic Acid	-	-	150	-	140	-	A	A	70	70	-
Sugar	-	-	-	-	140	-	-	B	100	140	-
Sulfur	-	-	C	A	140	C	B	B	-	C	B
Sulfur Chloride	-	-	C	-	-	C	C	C	C	70	A
Sulfuric Acid	to 30	100	180	A	140	C	C	C	140	C	A
Sulfuric Acid	50	70	150	A	140	C	C	C	70	140	A
Sulfuric Acid	60	C	150	A	140	C	C	C	C	C	A
Sulfuric Acid	70	C	120	A	140	C	C	C	C	C	A
Sulfuric Acid	80	C	73	A	140	C	C	C	C	C	A
Sulfuric Acid	90	C	C	B	100	C	C	C	C	C	A
Sulfuric Acid	93	C	C	B	100	C	C	C	C	C	A
Sulfuric Acid	94	C	C	B	100	C	C	C	C	C	A
Sulfuric Acid	95	C	C	B	100	C	C	C	C	C	A
Sulfuric Acid	96	C	C	B	100	C	C	C	C	C	-
Sulfuric Acid	98	C	C	B	C	C	C	C	C	C	-
Sulfuric Acid	fuming	C	C	B	C	C	C	C	C	C	A
Sulfurous Acid	Sat	C	140	-	140	C	C	C	75	-	A
Tannic Acid	10	C	180	A	140	B	B	C	70	100	A
Tartaric Acid	-	-	-	A	150	C	C	C	C	70	A
Titanium Tetrachloride	-	-	-	-	C	-	-	-	C	-	-
Trichloroacetic Acid	-	-	150	-	140	-	C	C	70	B to 70	-
Turpentine	-	-	C	C	140	A	A	A	C	70	A
Vinegar	-	73	180	A	140	C	C	C	180	C	-
Xylene	-	C	C	C	C	A	A	A	C	C	A
Zinc Chloride	-	-	180	A	140	-	C	C	180	70	A
Zinc Sulfate	-	-	180	A	140	-	C	C	180	140	A

Interpretation of Comparative Ratings as follows:

Temperatures are in °F = Max. Temperature recommended

A = Suitable for use

B to (Temp.) = Contact manufacturer

C = Strongly affected, not recommended

Blank = No information is available

