S-48 EXPANSION JOINT SEALANT

PRODUCT DESCRIPTION:
S-48 is a two-part component system consisting of a base compound and an accelerator. When mixed together, S-48 forms a pourable joint sealant. The base compound is a combination of liquid epoxy resins, pigments and inert filler. The accelerator, when added to the base compound will cure the epoxy resins at room temperatures between 40 and 90 degrees F. The cured compound has excellent impact resistance and adhesion to steel, aluminum, glass, ceramics, concrete and wood. S-48 is resistant to attack by mild acids, alkalis, corrosive salts, alcohols and aliphatic hydrocarbons. S-48 is a Shore D hardness material designed for high load stress, flex, and chemical resistance with low elongation.

USES:
S-48 is recommended for use in joints greater than 1/4" wide; in narrower joints, it may be difficult to control during pour. This product is suitable for use in food production facilities. S-48 is used in metal treatment facilities, sanitary waste, laboratories, dairies, beverage production, breweries, chocolates production, meat processing facilities, and packaged meals processing facilities.

TECHNICAL DATA: Physical Properties

Base Compound	**Test Method**	**Typical Value**
Wt./gallon	Gardner Wt. /gal. cup	8.9 lbs.
Viscosity	Brookfield	60,000-90,000 cps.
Pot Life @ 77°F (25°C)	Independent	35 to 45 min.
Accelerator		
Specific Gravity	Hydrometer	1.20 to 1.25
Viscosity	Brookfield	700 to 1,000 cps.
Compounded S-48		
Hardness, 14 days, Shore D-2	D2240-64	55 to 65
Tensile Strength	C638	800 to 1,400 psi. (5.52-9.66 MPa)Tensile
Coefficient of Expansion, (in./in.°F)	C531	7.5 x 10á (13.5 x 10á cm/cm/°C)

MIXING AND APPLICATION:
Make sure that the temperature of the materials are 65°F or warmer before mixing. Stir each part before using the part to ensure uniformity. To 1/2 the contents of the 4.75 lb. can of S-48 Base Compound, add 1/2 the contents of the 4.18 lb. can of S-48 Accelerator. Mix well. Pour into place. Be sure that joints into which this mixture is poured are clean and dry. This mixture will remain workable for approximately 35 minutes at 77°F and will withstand foot traffic after 8 hours. Do not expose to chemical service for 7 days.

CAUTION:
S-48 Expansion Joint Sealant is for industrial use only. It contains materials that present handling and potential health hazards. Consult Material Safety Data Sheets and the container labels for complete precautionary information before using.

CLEAN-UP:
Mixing equipment should be cleaned with acetone, toluene, xylene or methyl ethyl ketone before S-48 has cured completely.

COVERAGE:

Lineal feet per one gallon unit

JOINT DEPTH	JOINT WIDTH				
	¼"	3/8"	½"	1"	2"
¼"	343	257	171	85	42
3/8"	227	151	113	56	28
½"	170	113	85	42	21
¾"	113	75	56	28	14
1"	85	56	42	21	10
1 ½"	56	37	28	14	7

PACKAGING:

One gallon unit contains:
1 can part A Base – 4.75 lbs
1 can part B Accelerator – 4.18 lbs

SPECIFICATIONS:

Material: S-48 Expansion Joint Sealant shall be a two-component system that when mixed together forms a pourable joint sealant. S-48 shall be flexible and resistant to attack by mild acids, alkalis, corrosive salts, alcohols and aliphatic hydrocarbons. S-48 is recommended for joints wider than 1/4". Summitville Tiles Inc., Summitville, Ohio, shall supply S-48. Color shall be #_____.

S-48 Chemical Resistance Chart

Resistance at 80° F

R=	Recommended	N=	Not Recommended	C=	Conditional Splash Only
T=	Test required				

Acetic Acid 3%	R	Cresol	N	Methyl Acetate	T
Acetic Acid 10%	C	Egg, Raw	R	Methyl Alcohol	R
Acetone	C	Ethyl Acetate	T	Methyl Ethyl Ketone	C
Alcohol	R	Ethyl Alcohol	T	Methyl Sulfate	T
Ammonia (household)	R	Ethyl Bromide	N	Methylene Chloride	N
Ammonium Bromide 30%	R	Ethylene Glycol Monobutarate	R	Milk	R
Aniline	N	Fatty Acids	R	Mineral Oil	C
Animal Oils	R	Ferric Chloride	R	Mineral Spirits	C
Bakery Products	R	Ferric Nitrate	T	Molasses	R
Beer	R	Ferric Sulface	T	Muriatic Acid	N
Benzene	C	Fluosilicic Acid	T	Mustard	R
Benzene Sulfonic Acid, 10%	C	Formaldehyde	C	Nickel Chloride	T
Benzoic Acid	C	Formic Acid 10%	C	Nickel Nitrate	T
Benzyl Acetate	C	Formic Acid Glacial	N	Nickel Sulfate	T
Benzyl Alcohol	N	Fruit Extracts	R	Nitric Acid 5%	R
Benzaldehyde	N	Fruit Juices	R	Nitric Acid 10%	C
Boric Acid	T	Gasoline	T	Nitric Acid 20%	N
Bromine Water	R	Glucose	R	Nitrobenzene	N
Butanol	R	Glycerin	R	Nitrotoluene	R
Butter	R	Grape Juice	R	Oleic Acid 10%	C
Butyl Acetate	C	Horse Radish	R	Olive Oil	R
Butyl Alcohol	T	Hydriotic Acid 20%	R	Oxalic Acid	C
Calcium Chloride	R	Hydrobromic Acid 10%	R	Perchloroethylene	C
Calcium Hydroxide	R	Hydrochloric Acid 37%	C	Perchloric Acid	N
Carbon Disulfide	C	Hydrochloric Acid 50%	N	Phenol	N
Carbon Tetrachloride	R	Hydrofluoric Acid	C	Phenol Alcohol	N
Carbonated Water	R	Hydrofluosilicic Acid	C	Phosphoric Acid 10%	R
Casein	R	Hydrogen Peroxide	C	Phosphoric Acid above 10%	T
Cheese	R	Hydrogen Sulfide Gas, Dry	R	Pickles	R
Chloroacetic 10%	N	Hydrogen Sulfide Gas, Wet	C	Picric Acid	N
Chlorine Dioxide, Water Solution	T	Hypochlorous Acid up to 5%	T	Potassium Bicarbonate	R
Chlorine Gas, Dry	T	Ice Cream	R	Potassium Carbonate	R
Chlorine Gas, Wet	T	Jams & Jellies	R	Potassium Chloride	R
Chlorine water (bleach)	R	Jet Fuel	T	Potassium Cyanide	R
Chloroacetic Acid, 10 %	C	Kerosene	T	Potassium Ferricyanide	R
Chlorobenzene	N	Ketchup	R	Potassium Ferrocyanide	R
Chloroform	N	Lactic Acid 3%	R	Potassium Hydroxide 5%	R
Chromic Acid 5%	R	Lactic Acid 10%	C	Potassium Hydroxide 30%	R
Chromic Acid 10%	C	Lactic Acid over 10%	T	Potassium Hydroxide < 30%	C
Cider	R	Lard	R	Potassium Nitrate	R
Citric Acid 10%	R	Linseed Oil	T	Potassium Persulfate 50%	N
Citrus Fruits	R	Magnesium Chloride	T	Potassium Sulfate	R
Coffee	R	Magnesium Nitrate	T	Pyridine 20%	N
Cooking Grease	R	Magnesium Sulfate	T	Pyridine	N
Copper Chloride	R	Magnesium Hydroxide	T	Rochelle Salt	R
Copper Nitrate	R	Maleic Acid	T	Potassium Bicarbonate	R
Copper Sulfate	R	Malt	R	Potassium Carbonate	R
Corn Oil	R	Malt Liquors	R	Potassium Chloride	R
Corn Syrup	R	Margarine	R	Potassium Cyanide	T

*

S-48 Chemical Resistance Chart - Continued

Resistance at 80° F

R=	Recommended	N=	Not Recommended	C=	Conditional Splash Only
T=	Test required				

Potassium Ferricyanide	T	Sodium Sulfide	T	Turpentine	T
Potassium Ferrocyanide	T	Sodium Sulfite	T	Urea	R
Potassium Hydroxide 5%	R	Sodium Thiosulfate	T	Vegetable Oil	R
Potassium Hydroxide 30%	R	Soft Drink Concentrates	R	Vinegar	R
Potassium Hydroxide > 30%	C	Soft Drinks	R	Wine	R
Potassium Nitrate	T	Soups	R	Xylene	T
Potassium Persulfate 50%	R	Soya Oil	T	Yeast	R
Potassium Sulfate	T	Soy Sauce	R	Zinc Chloride	T
Pyridine 20%	C	Stearic Acid	T	Zinc Nitrate	T
Pyridine	N	Sugar, Saturated Solution	R	Zinc Sulfate	T
Rochelle Salt	R	Sulfuric Acid, 45%	R		
Salad Oils	R	Sulfuric Acid, 50%	C		
Salicylic Acid	C	Sulfuric Acid, 80%	N		
Shortening	R	Sulfuric Acid, 93%	N		
Silver Nitrate	C	Sulfuric Acid, fuming	N		
Skydrol	T	Sulfurous Acid	C		
Smokehouse Residues	R	Syrup	R		
Sodium Bicarbonate	R	Tannic Acid	R		
Sodium Carbonate	R	Tartaric Acid	R		
Sodium Chloride	R	Tea	R		
Sodium Cyanice	T	Tetrahydrofuran	N		
Sodium Glucconate	T	Tin Chloride	T		
Sodium Hydroxide ≥ 30%	R	Tin Sulfate	T		
Sodium Hydroxide 35%	R	Toluene	N		
Sodium Hydroxide ≥ 35% **	C	Toluene Sulfonic Acid	N		
Sodium Hypochlorite, ≤ 3 %	R	Tomato Juice	R		
Sodium Hypochlorite ≥ 3 %	T	Trichloroethylene	N		
Sodium Nitrate	T	Trisodium Phosphate	R		
Sodium Sulfate	T	Tung Oil	T		

***** The information presented in the chemical resistance tables is based upon the testing and conclusions resulting from laboratory testing and field service performance, and is reported conservatively. These tables were prepared as a general guide. No guarantee of in field results is made or implied and no liability in connection with this information is assumed or permitted. Actual in service exposures are beyond the control of Summitville Tiles, Inc. and such exposures include thermal cycling, wetting and drying cycling, exposure to multiple chemicals in succession and or collectively, new chemicals created as a result of area and materials usage. (Example: no data can be provided regarding resistance to enzyme cleaners. The cleaner alone has not demonstrated to create a problem, nor has the grease alone. Enzyme cleaners however break down foods into new extremely harsh acids that are uncontrollable, therefore enzyme cleaner resistance data is useless. Reference : **"Epoxy Grout and Enzymatic Cleaners: A Question of Compatibility"** by Dale C. Mann *Posted: July 31, 2009* Tile Magazine) Information supplied by these charts must be supplemented by in-service testing by the facility in question. Contact Summitville Tiles, Inc. for potential assistance with sampling should you wish to perform in-service testing on site.

****** High concentrations of Sodium Hydroxide exposure will result in a sodium salt deposit that may turn the surface white/gray.