

EPS NO. 1025

SUBJECT: CHEMICAL EXPOSURE

DATE: JUNE 2017 (REVISED JANUARY 2019)

R-Shield[®] insulation is used in a wide variety of applications. There may be instances in applications where R-Shield insulation is subjected to chemical exposure. This can be by either direct exposure to the chemicals or to their chemical vapors. Exposure to chemicals most commonly occurs during the installation process or as the result of exposure after the R-Shield insulation is in place.

The attached table provides general guidance for the resistance of R-Shield insulation to a number of chemicals. The table is intended to provide a preliminary guide, but does not guarantee long term performance of R-Shield insulation when in contact with the listed or any other chemicals.

It is recommended that laboratory tests modeled to represent chemical exposure in end use conditions be conducted to assure efficacy of the R-Shield insulation.

When the exposure of R-Shield insulation to any harmful chemicals is a possibility or in doubt, the protection of R-Shield insulation by means of an appropriate barrier material is required.

Rating: Overall chemical exposure performance is noted by a rating symbol.

S = Satisfactory

M = Marginal*

U = Unsatisfactory*

Chemical	Rating
Acetic Acid (5%)	S
Acetic Acid (10%)	M
Acetone	U
Ammonia	S
Benzene	U
Butyl Alcohol	S
Citric Acid (10%)	S
Citric Acid (20%)	M
Detergents	M
Diesel Fuel	U
Ethyl Acetate (98%)	U
Ethyl Alcohol (95%)	M
Ethylene Glycol	S
Gasoline	U
Hexane	U
Hydrochloric Acid (10%)	S
Hydrochloric Acid (38%)	M
Hydrochloric Acid (100%)	U
Hydrogen Peroxide (30%)	S
Isopropyl Alcohol	M

Chemical	Rating
Kerosene	U
Methyl Alcohol	M
Methyl Ethyl Ketone	U
Mineral Oil	S
Motor Oil	M
Nitric Acid (20%)	U
Paint Thinner	U
Petroleum Jelly	S
Potassium Hydroxide (%30)	S
Propyl Alcohol	M
Propylene Glycol	S
Sodium Chloride (saturated)	M
Sodium Hypochlorite (15%)	S
Sodium Hydroxide (40%)	S
Sulphuric Acid (50%)	S
Sulphuric Acid (96%)	S
Toluene	U
Turpentine	U
Water (salt/sea)	S
Xylene	U

* R-Shield insulation must be protected by an appropriate barrier material if there is a potential of exposure to these chemicals.

This information contained herein is provided for general purposes only. By providing this information, Big Sky Insulations makes no guaranty or warranty, and does not assume any liability with respect to the accuracy or completeness of such information, and hereby expressly disclaims any implied warranties of fitness of the use of R-Shield insulation for a particular purpose.