CHEMICAL & PHYSICAL PROPERTIES

Table 1 lists physical properties of ThermalStar XTR insulation for the US . Chemical resistance is listed in Table 2. Contact Atlas EPS Technical Services for compatibility of materials not lis

MOLD RESISTANCE

ThermalStar XTR insulation has been tested against 4 week exposure to various mold and fungi via ASTM G21, D3273, and with no growth of spores on the product. XTR insulation provides no nutritive value for mold. However, construction practices greatly impact mold growth, and fungi have been known to even gl glass.

FREEZE/ THAW EXPOSURE

ThermalStar XTR insulation has been tested via ASTM C1512 Moisture & Temperature Cycling for Insulation with no loss of physical or thermal performance. This test places the produc between a cold chamber and a high humidity chamber with tem perature cycling, measuring the effect on the insulation as natural moisture drive occurs.

Table 2 Chemical Compatibility of ThermalStar XTR Insulation

Inorganic Acids (Muriatic, Sulfuric, Boric Acid)	Excellent
Organic Acids (Carbolic, Citric, Acetic Acid)	Good
Bases (Sodium Hydroxide, Potassium Hydroxide, Ammonia)	Excellent
Alcohols (Methanol, Ethanol, Isopropyl Alcohol)	Good
Beer, Tea, Coffee, Carbonated Soda, Water, Fruit Juice	Excellent
Household Liquid Spray Insecticides (non-aqueous)	Poor
Cement	Excellent
MEK, Methylene Chloride, Acetone	Poor
Antifreeze (Ethylene Glycol - Green, Propylene Glycol - Orange)	Excellent
Hydrocarbons (Hexane, Gasoline, Diesel, Kerosene)	Poor
Mineral Oil	Excellent
Other Oils (Corn, Motor, Palm, Coconut Oil)	Good
Agricultural (Manure, Feed, Urine, Soil, Fertilizer)	Excellent
Formaldehyde, Turpentine, Chloroform, Naphtha	Poor
Salts (Ammonium, Ferrous, Sodium Chloride, Sulfur)	Excellent
MDI-based Adhesive (Gorilla Glue, Fast-Tac, Dow Great Stuff)	Good
Bleach, Detergents, Borax	Excellent
Cured Mastic, Construction Adhesive, Hardened Asphalt	Good
Wherever XPS insulation is used	Excellent

Excellent = No degradation, no effect from exposure
Good = some effect from exposure, but not significant for product performance
Poor = significant degradation affecting performance, up to completely dissolving product
This table is a guide only - consult Atlas Technical Services for specific chemical design questions

SAFETY

MSDS for this product available at www.atlaseps.com Dust generated from sanding or cutting ThermalStar XTR insulation should be avoided using a dust mask as with other building materials. XTR insulation is combustible and the product should be protected from ignition sources such a open flames or welder's torch. Applications not specifically listed in ICC-ES ESR-1962 require permanent separation of XTR insulation from the interior of the building by a thermal barrier such as drywall or concrete for fire safety.

ENVIRONMENTAL

ThermalStar XTR insulation uses air in the insulating cells, emitting no gasses. The ppm levels of terpene incorporated into the polystyrene wax matrix do not present leaching concerns under typical applications. XTR insulation is readily accepted for recycle at many drop off locations. Go to www.epspackaging.org for a list of locations.

&2'(&203/,$1&(

ThermalStar XTR insulation complies with the model building codes when properly installed:

- Surface Burning – UL BRYX.R16529
- Cal Std Reg #CA472
- International Energy Conservation Code
- ASTM C578 – see product marking for Type
- Physical Properties – UL QORW.R16529
- International Residential Code (IRC) – ICC-ES ESR-1962
- International Building Code (IBC) – ICC-ES ESR-1962
- CAN/ULC S102.2, S701 – ULC BOZCC.R16529

ATLAS EPS Solutions. Delivered.™