ITW INSULATION SYSTEMS

TRYMER® Polyisocyanurate and TRYMER® Supercel Phenolic Pipe Insulations and LEED

LEED Explanation

The U. S. Green Building Council (USGBC) is a nonprofit coalition promoting high-performance green building design. Its members represent all segments of the building industry.

To encourage the design of green buildings, the USGBC developed a system to rate the environmental designs of buildings. The Leadership in Energy and Environmental Design (LEED™) Green Building Rating System is a voluntary consensus-based standard that recognizes the life-cycle costing of construction.

The LEED Green Building Rating System allows design professionals to accumulate credits based on certain criteria pertaining to the use of environmentally friendly, sustainable, and energy-efficient products and systems. Buildings may attain one of four LEED certification levels by reaching certain point levels in each of the LEED categories. Using the LEED design process offers numerous benefits, including financial incentives in some states and localities.

To download the Green Building Rating System for New Construction and Major Renovations (LEED-NC), Version 2.1, visit www.usgbc.org

TRYMER® Polyisocyanurate Pipe Insulation

TRYMER® polyisocyanurate (PIR) pipe insulation is a polyurethane modified polyisocyanurate rigid insulation formulated with a high concentration of polyisocyanurate linkages. It has a very low average k-factor (measure of thermal conductivity) and is especially effective in the temperature range of -297°F to 300°F.

TRYMER® Supercel Phenolic Pipe Insulation

TRYMER® Supercel Phenolic pipe insulation is a phenolic material designed to provide the lowest thermal conductivity of any standard material combined with excellent flammability performance, closed-cell, and good water and water vapor resistance. These properties make TRYMER® Supercel Phenolic Insulation the ideal material for use as pipe insulation on chilled water, cold water, and hot water pipe located in the air plenums of commercial buildings where flammability is the greatest concern but energy efficiency is still important and governed by codes.

Contribution of Trymer Insulation to LEED Credit

Incorporating TRYMER® polyisocyanurate or TRYMER® Supercel phenolic insulation on the chilled water, cold water, and hot water pipe, tanks, and equipment in your building designs can help obtain LEED credits in several categories.

The official categories and manner in which TRYMER® Insulation might help contribute to LEED points are shown below.

Sustainable Sites (SS)

SS Credit 7.2 (ONE POINT POSSIBLE)

HEAT ISLAND EFFECT: ROOF

The USGBC encourages the construction industry to reduce heat islands (thermal gradient differences between developed and undeveloped areas) to minimize impact on microclimate and human and wildlife habitats.

TRYMER® insulation can be used on hot and cold piping and equipment to reduce the urban heat island effect.

Energy & Atmosphere (EA)

EA PREREQUISITE 2 (REQUIRED)

MINIMUM ENERGY PERFORMANCE

To qualify for LEED credit, the USGBC requires the construction industry to establish the minimum level of energy efficiency for the base building and systems. The use of TRYMER® PIR or TRYMER® Supercel insulations will help the building design meet/exceed ASHRAE Standard 90.1 or the local energy code, whichever is more stringent.

EA CREDIT 1 (1-10 POINTS POSSIBLE)

OPTIMIZE ENERGY PERFORMANCE

The USGBC encourages the construction industry to achieve increasing levels of energy performance above the prerequisite standard to reduce environmental impacts associated with excessive energy use.

TRYMER® PIR and TRYMER® Supercel insulations can help achieve high energy efficiencies by providing stable, long-term insulation for hot and cold piping and equipment.

EA CREDIT 4 (ONE POINT POSSIBLE)

OZONE PROTECTION

The USGBC encourages the construction industry to reduce ozone depletion and support early compliance with the U. S. Clean Air Act. TRYMER® PIR and TRYMER® Supercel insulations are manufactured without the use of chlorofluorocarbon (CFC) or hydrochlorofluorocarbon (HCFC) blowing agents.

In addition the VOC levels are low with both TRYMER PIR® and TRYMER® Supercel Phenolic having less than 3% by weight VOC.

EA CREDIT 5 (ONE POINT POSSIBLE)

MEASUREMENT AND VERIFICATION

The USGBC encourages the construction industry to provide for the ongoing accountability and optimization of building energy and water consumption performance over time.

TRYMER® PIR and TRYMER® Supercel insulations help in providing for the ongoing accountability and optimization of building performance over time by complying with installed equipment requirements for chiller efficiency and requirements for building specific process energy efficiency of mechanical systems and equipment.

Materials & Resources (MR)

MR CREDIT 5.1 (ONE POINT POSSIBLE)

LOCAL/REGIONAL MATERIALS: 20% MANUFACTURED REGIONALLY

The USGBC encourages the construction industry to increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the regional economy and reducing the environmental impacts resulting from transportation.

While the basebuns of TRYMER insulation are manufactured in or near Houston, Texas, these are actually just one of the key raw materials used to form the actual pipe and equipment insulation systems.

The actual insulation systems are produced at the fabricator's facilities which are usually located regionally. Obtain credit for locations within 500 miles of the fabricator's facility. For more information on the fabricators near your LEED facility, contact ITW.

ITW INSULATION SYSTEMS

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