

Frequently Asked Questions

1/8/02

CAN FACINGS BE PAINTED?

- If a facing must be painted the correct procedure for evaluating the paint can be found at www.lamtec.com/painting.htm.
- When painting a facing:
 - UL fire rating is no longer valid
 - potential for flaking
 - potential to destroy vapor retarder properties

WHAT IS THE BEST FACING FOR A CHEMICALLY HOSTILE ENVIRONMENT?

- WMP-VR and WMP-50 are often good choices.
- The specifier should review the compatibility of the facing's white polypropylene film with the chemicals in the building's environment.
- This information can be found at www.lamtec.com/chemical-resist.1htm.

WHAT ABOUT ICE ARENAS?

- The issues are complex.
- Professionals experienced in the design of ice skating arenas should be consulted.
- There are unique HVAC and dehumidification system requirements.
- Due to concerns about condensation, fiberglass insulation with facings on both sides, one perforated and one non-perforated, may be specified.
- Studies have shown that low emissivity foil facings, installed with foil exposed, reduces refrigeration costs.
- Arenashield has been specifically designed for use in ice arenas.

CAN I ORDER PERFORATED PRODUCTS?

- Yes, Lamtec can perforate its full line of insulation facings. Perforations are available in the following options:
 - Full coverage where 100% of the exposed surface is pin perforated. This is designed for application where the facing is typically not laminated to the fiberglass.
 - Pattern or “Channel” perforated to allow for easy laminating. This technique allows the facing to be laminated to fiberglass with no adhesive bleed through.

WHAT IS THE MAXIMUM INDOOR HUMIDITY THAT AVOIDS MOISTURE PROBLEMS?

- The maximum recommended continuous indoor relative humidity (RH) varies from 30% to 45%, depending on geographic location.
- General guidelines by region of the country can be found at www.lamtec.com/moisture/htm.
- An engineer should be consulted to determine the correct HVAC design for a specific facility.

WHAT HAPPENS WHEN A FACING BECOMES WET AFTER INSTALLATION?

- Typically, insulation facing will not be affected by limited exposure to water if allowed to fully dry.
- Prolonged exposure to water can potentially result in a loss of certain physical properties.

WHAT IS THE SIGNIFICANCE OF A 25/50 FIRE RATING?

- Most building codes require faced metal building insulation to have a Flame Spread Rating of 25 or less and a Smoke Developed Rating of 50 or less when tested in accordance with ASTM E84 or UL 723. Note: ASTM E84 and UL-723 are used interchangeably. UL-723 is Underwriters Laboratories designation for the E84 test procedure. Code officials typically accept data by either procedure.
- The “**25/50**” designation is used to indicate that products comply with building code requirements and are suitable for exposed applications.

HOW SHOULD FACED INSULATION BE STORED AT THE JOB SITE?

- Individual rolls of insulation should be packaged in ventilated bags.
- Elevate material off ground or slab.
- Cover material to protect it from weather.

Note: Freshly poured concrete gives off a significant quantity of moisture that is corrosive to facings containing aluminum foil or metallized film.

WHY DO YOU OCCASSIONALLY EXPERIENCE STAINING OF FOIL FACED INSULATION?

- Improperly ventilated bags are the primary cause of staining.
- Black or brown staining is caused by extended exposure to moisture on the surface of the foil.
- Potential sources of moisture are:
 - adhesive used to laminate the facing to fiberglass
 - improper job site storage
 - exposure to curing concrete
 - daytime/nighttime temperature changes

WHY IS IT PREFERABLE NOT TO POUR CONCRETE IN AN UNVENTILATED BUILDING?

Freshly poured concrete contains a tremendous amount of moisture (A 10' x 10' x 4" area of concrete contains approximately 24 gallons of water). As the concrete cures, much of this water is liberated into the air, increasing the relative humidity and vapor pressure within the building.

Ventilation is the simplest way to reduce humidity and vapor pressure and lower the probability of condensation related problems. Failure to adequately ventilate a building during and after a concrete pour can result in condensation on the surface of the vapor retarder and potentially within the insulation. This is particularly critical in colder temperatures.

Vapor retarders do precisely as their name implies, they retard the passage of water vapor into an insulation system. They are not complete barriers that fully block the movement of moisture vapor. The amount of water vapor that passes through or around an insulation facing is a function of the following:

- 1) Perm rating- The lower the perm rating the better the vapor retarder. A facing with a 1.0 perm rating will allow approximately 10 times more water vapor to pass through into the insulation than a facing with 0.09 perm rating, under the same conditions.
- 2) Vapor pressure differential – Moisture will flow from areas of high vapor pressure (high humidity and/or temperature) to areas of low vapor pressure (low humidity and/or temperature). The force which drives moisture through a facing is known as the vapor pressure differential.
- 3) Through penetrations and closures – While vapor retarders effectively limit the amount of moisture that can migrate into the insulation, seams and penetrations can allow for high levels of moisture to bypass the vapor retarder and condense within the insulation.

For reference, Johns Manville has developed a series of indoor humidity recommendations for metal buildings located throughout the United States. These can be found at: www.lamtec.com/moisture.htm. When pouring concrete floors in enclosed buildings, it is critical that these guidelines be followed closely and that the target humidity is achieved as quickly as practical.

WHAT CAN CAUSE BLACK MARKS ON WHITE FACINGS?

- Black marks are typically particles that cling to the surface of the facing.
- The primary causes of these particles can be dust, dirt and diesel soot.
- Staining may be more noticeable if condensation forms on the surface of the facing.
- These marks can typically be cleaned off with household cleaners.

HOW DOES UV EFFECT FACINGS?

- Ultraviolet light (UV) will degrade unprotected plastic.
- Lamtec's facings are manufactured with plastic films containing UV inhibitors and are designed for interior applications. Facings containing plastic films are not recommended for building structures (such as pavilions) with open walls.
- Sources of UV are sunlight and lighting fixtures.
- It is desirable to specify low UV output lighting.
- UV can be reflected off of surfaces such as floors.
- Foil facings are not affected by UV and should be considered for application with high UV exposure.

DOES APPEARANCE IMPROVE AFTER INSTALLATION?

- The overall appearance of most installations improves over time. A major contributor is the recovery of the fiberglass that occurs with the expansion and contraction of the building. Typically there is noticeable improvement during the first few months after installation.
- The appearance of kraft backed facings (WMP-VR, WMP-10, WMP-30 and R-3035 HD) improves more than facings with a film backing.
- Certain types of wrinkles and/or creases may not significantly improve over time.

Detailed technical bulletins are available at:
www.lamtec.com/metalbuildings.htm

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