

# JOINT CLOSURE RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS FOR INTERIOR EXPOSED APPLICATIONS

## JOINT EFFORTS

Controlling indoor temperatures and humidity is essential for protecting your building and your investment. Rmax polyiso insulation offers superior choices for maximum efficiency on all projects - metal buildings, tilt-up concrete wall panels, parking garage ceilings and architectural buildings housing equipment, produce and animals. These easy-to-install insulation products help achieve thermal control, while providing protection against moisture and reducing air leakage - with properly treated joints. Rmax insulation and accessories create a clean, professional solution for any application.

Rmax ECOMAXci<sup>®</sup> FR and TSX-8510 are energy-efficient thermal insulation boards composed of a closed-cell polyisocyanurate (polyiso) foam core bonded to glass fiber reinforced aluminum facers on both sides. The interior (exposed) side of ECOMAXci<sup>®</sup> FR is silver and reflective, while TSX-8510 is white and non-reflective. Both products are designed for use without a thermal barrier.

JOINT CLOSURE	PACKAGE DETAILS	SIZES
R-SEAL 3000 2mil aluminum foil tape with acrylic adhesive	150 linear feet per roll 4" - 12 rolls per case	4" widths
R-SEAL 3000W 2mil white aluminum foil tape with acrylic adhesive	150 linear feet per roll 16 rolls per case	3" wide
Quick Clip PVC attachment system providing a white finish at the joints	10 feet per piece 20 pieces per carton	Accommodates nominal foam thicknesses of 1.0", 1.25" 1.5", 2.0", 2.5" and 3.0"
Flex-Tite Insulation Clips Two part interlocking PVC attachment system	10 feet per piece 20 pieces per carton	1" female base accommodates foam thicknesses from 1.0" to 1.75"
providing a white finish and air-tight seal at the joints		2" female base accommodates foam thicknesses from 2.0" to 2.75"
		3" female base accommodates foam thicknesses from 3.0" to 3.75"
		Various male top "T"s to join with female base and accommodate foam thicknesses from 1.0" to 3.75"
Flex-Tite J-Channel PVC attachment system to finish all terminations, horizontal and vertical, including window and door frames	10 feet per piece 20 pieces per carton	Accommodates nominal foam thicknesses of 1.0", 1.25" 1.5", 1.75" - 2.0", 2.5" and 2.75" - 3.0"

Use R-SEAL Tapes or Flex-Tite Insulation Clips at the joints to ensure an air-tight seal. Quick Clip Insulation Clips may exhibit gaps due to differences in the tolerance of the insulation clips and that of the insulation.

## **RMAX JOINT CLOSURE SYSTEMS**

## **GENERAL INFORMATION**

- Rmax insulation boards are shipped in approximately 48 inches high, wrapped bundles. Bundles must be unloaded from trucks by a fork-lift truck or similar equipment with suitable forks to slide under bundles. Rolling or tumbling bundles off delivery trucks will damage the insulation and cause the Rmax warranties to become void.
- The wrapping materials used to ship the bundles are not adequate for weather protection. Insulation products must be tarped, placed on skids and kept dry before and throughout construction. Installation of wet insulation, tape or any other components within the wall assembly shall cause the Rmax warranties to become void.
- The finished wall surfaces shall be clean and free of irregularities that will affect the placement or performance of the insulation, including, but not limited to, dirt, debris, miscellaneous fasteners or warped, defective or otherwise damaged framing.
- Insulation products are marked during production. Follow the instructions on the board to ensure proper orientation/installation.
- Polyiso will not break cleanly or evenly. It is best to use a sharp, fine toothed saw for cutting insulation panels. Use of a utility knife to cut the insulation boards is acceptable, ensuring to cut all the way through the facing on both sides.
- Before applying any tape or sealant, use a dry cloth to remove contaminants and/or foam dust from the application area.
- The maximum service temperature for the Quick Clip, Flex-Tite Insulation Clips and Flex-Tite J-Channel is 150°F. In roof systems where the roof will exceed this temperature, it is recommended to use two layers of insulation to separate the attachments from the exterior.
- High humidity applications may require two layers of insulation with staggered joints for optimal moisture control.
- Note: To create a complete solution, it is important to also seal the ceiling to wall, loor to wall and wall to wall transitions.

## SECUREMENT

Secure Rmax insulation board, at a minimum of 1 inch thickness, to wood or metal framing with corrosion resistant fasteners and plastic washers. Install perpendicular to framing, spanning at least three framing members with joints over framing. The maximum span is 5 feet. Fasteners should penetrate wood framing at least one inch and steel framing at least four threads. For concrete, secure Rmax insulation board with fasteners and/or a quality grade construction adhesive.

## MATERIALS CHECKLIST

- · Small handsaw or utility knife
- Straight edge
- Measuring tape
- Pencil
- · Hammer, pneumatic fastener or screwdriver
- Fasteners and plastic washers
- As needed based on application and desired installation technique
  - R-SEAL 3000 or R-SEAL 3000W
  - · Feathering tool or roller
  - · Quality grade construction sealant
  - · Quality grade construction adhesive
  - · Spray polyurethane foam filler
  - Quick Clips, Flex-Tite Insulation Clips and Flex-Tite J-Channels
- Appropriate PPE





# **CLOSING A JOINT**

## TAPE OPTION

#### Metal buildings, wood framed and concrete construction

- 1. Fasten Rmax insulation boards.
- Center tape over dry, clean joint and apply. For ECOMAXci<sup>®</sup> FR, use R-SEAL 3000. For TSX-8510, use R-SEAL 3000W.
- 3. Wipe the tape firmly from the center out with a feathering tool or hand roller to smooth out wrinkles. The more pressure that is applied, the more surface contact that will be reached and therefore, the greater the bond surface. Do not tear tape, cut with a knife.



#### FLEX-TITE J-CHANNEL OPTION FOR TERMINATIONS Metal buildings, wood framed and concrete construction

#### **Bottom Terminations:**

1. Align J-Channel horizontally at desired height and check for level.

2. Attach J-Channel through pre-punched holes at 12 inches o.c.

3. For optimal air and moisture control, apply a quality grade construction sealant along the length of both sides of the J-Channel. Refer to sealant manufacturer for recommendations and proper installation techniques.

4. Slide the Rmax insulation board into place.

#### Top and Vertical Edge Terminations:

- 1. Apply quality grade construction sealant along the length of the J-Channel. Refer to sealant manufacturer for recommendations and proper installation techniques.
- 2. Fit closure around the edge of the Rmax insulation board.



## FLEX-TITE INSULATION CLIP OPTION

#### Metal buildings, wood framed and concrete construction

- 1. Install female clips at widths appropriate for insulation size. Measurement and placement of each section should result in a tight fit once insulation is installed.
- 2. Attach each female clip vertically to wall through pre-punched holes at 12 inches o.c. Check for plumb.
- Do not span framing with interlocking clips.
   a. For concrete, apply quality grade construction adhesive to the wall between female clips. Firmly press Rmax insulation board into place between female clips and hold until adhesive is set. Refer to adhesive manufacturer for application recommendations and proper installation techniques.

b. For framed construction, insert insulation into J-Channel between female clips.

- 4. For optimal air and moisture control, tape horizontal joints and apply a construction grade sealant along the surface of the insulation at each side of the vertical joint.
- 5. Install male clips ensuring that they snap completely into the interlocking female base for a tight fit with the insulation.



#### **QUICK CLIP OPTION** Metal buildings, wood framed and concrete construction

- 1. Attach Quick Clip to wall or ceiling through pre-punched holes at 12 inches o.c.
- For optimal air and moisture control, apply a quality grade construction sealant along the length of both sides of the Quick Clip. Refer to sealant manufacturer for application recommendations and proper installation techniques.
- 3. Slide the Rmax insulation board into place.
- 4. Continue attaching each Quick Clip section and subsequent insulation board to ensure a tight fit.



NOTE: Panels should be tightly butted at corners. Alternatively, use J-Channels for a more finished look. For optimal air and water control, use tape to seal tightly butted joints, or apply a quality grade construction sealant along the length of the J-Channel at the interface of both panels.