

# DuPont™ Thermax™ Insulation in Standing Seam Metal Roofs

## SYSTEM OVERVIEW

### General Information

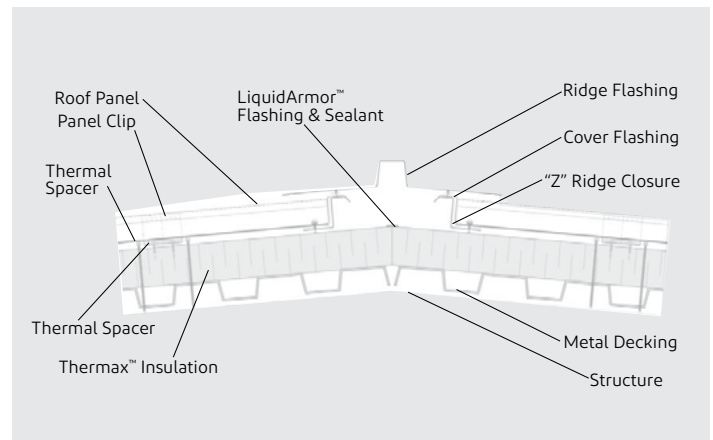
The versatility, long-term durability and low maintenance of standing seam metal roofs have made them a highly popular choice in many new, retrofit and reroof applications. DuPont offers five DuPont™ Thermax™ polyisocyanurate insulation products that are ideally suited for use in standing seam metal roof applications:

- Thermax™ Metal Building Board
- Thermax™ Sheathing
- Thermax™ Heavy Duty
- Thermax™ Light Duty
- Thermax™ White Finish

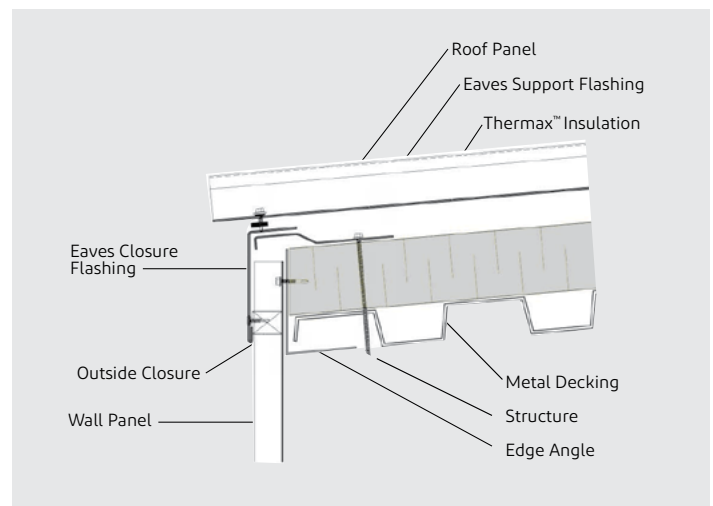
Insulating with Thermax™ products from DuPont boosts the energy performance of a metal roof, further increasing its cost effectiveness. Additional advantages of Thermax™ products include:

- Outstanding thermal performance (R-6.5 at 1") – one of the highest R-values available
- Durability – robust facers enhance durability, moisture resistance and dimensional stability
- Code compliance – meets most building code requirements for foamed plastic insulation
- Exceptional fire performance – can be installed exposed to the interior without a thermal barrier
- Ease of installation
- Board lengths up to 30'
- Shiplap edges available for products thicker than 1.5"

Standard Ridge Lock Seam Roof Panels



Simple Eave on Lock Seam Roof Panels or Wall Panels



\*R means resistance to heat flow. The higher the R-value, the greater the insulating power

Metal building designers and building owners will appreciate significant savings in material and labor costs when specifying **DuPont™ Thermax™ insulation** in a standing seam metal roof. The exceptional thermal performance and Class 1 rating of Thermax™ products allow the use of lighter gauge decking (26 gauge instead of the typical 22 gauge), resulting in significant cost savings. Open frame designs, where the insulation boards may be left exposed, allow further design flexibility, and enhance interior aesthetics. The bright white surface of the thermoset facers (with a light reflectance of 65 percent) also contributes to reduced light energy costs.

For greater resistance to water intrusion, apply **DuPont™ Weathermate™ Straight Flashing** at seams between insulation boards. Available in 4" and 6" widths, **Weathermate™ Straight Flashing** combines a high-density polyethylene film facer with a butyl rubber adhesive for a strong mechanical and chemical bond to insulation and other building materials.

## Approved Assemblies

### Underwriters Laboratories, Inc. (UL)

Thermax™ products comply with UL Class 90 wind uplift when properly installed in an approved system. See UL Roofing Materials and Systems Directory. Thermax™ products are classified by UL per ANSI/UL 1256 for "Roof Deck Constructions" (TGKX). They are tested according to Class A UL 723 (ASTM E84) based on the Steiner Tunnel test. Table 1 lists UL-approved SSMR assemblies incorporating Thermax™ insulation.

### Factory Mutual

Thermax™ products, in thicknesses of 4-1/4" and less, have been approved by Factory Mutual Research Corporation Standard 4880 for use as Class 1 Wall and Ceiling panels (30' height maximum) when installed as described in the current edition of the FMRC Approval Guide. Table 2 lists FM-approved SSMR assemblies that specify Thermax™ insulation.

**TABLE 1: UL-Approved SSMR/Thermax™ Assemblies\***

UL Assembly	UL Assembly	UL Assembly
TGKX 26	TGKX 126	TGKX 185A
TGKX 83A	TGKX 127	TGKX 198
TGKX 93	TGKX 130	TGKX 199
TGKX 112v	TGKX 139	TGKX 227
TGKX 113	TGKX 165	TGKX 245
TGKX 113A	TGKX 178	TGKX 246
TGKX 115	TGKX 180	TGKX 354B
TGKX 119	TGKX 185	

\* Always check with the UL Roofing Materials and Systems Directory for the specific details of the assembly.

**TABLE 2: FM-Approved SSMR/Thermax™ Assemblies\***

FM Assembly	FM Assembly	FM Assembly	FM Assembly	FM Assembly	FM Assembly
147-0-0	699-0-0	18666-0-0	18818-0-0	36795-0-0	51803-0-0
149-0-0	700-0-0	18667-0-0	18819-0-0	36822-0-0	56995-0-0
150-0-0	701-0-0	18682-0-0	18820-0-0	36827-0-0	57002-0-0
151-0-0	702-0-0	18726-0-0	18824-0-0	37064-0-0	57103-0-0
152-0-0	995-0-0	18728-0-0	18825-0-0	48021-0-0	57107-0-0
153-0-0	1134-0-0	18729-0-0	18827-0-0	48037-0-0	57117-0-0
154-0-0	1141-0-0	18730-0-0	18828-0-0	48051-0-0	57122-0-0
156-0-0	13714-0-0	18731-0-0	18829-0-0	48348-0-0	57128-0-0
157-0-0	16863-0-0	18732-0-0	20862-0-0	51042-0-0	57163-0-0
204-0-0	18447-0-0	18738-0-0	29819-0-0	51065-0-0	57174-0-0
210-0-0	18474-0-0	18739-0-0	29821-0-0	51450-0-0	57178-0-0
649-0-0	18633-0-0	18740-0-0	29826-0-0	51460-0-0	57182-0-0
650-0-0	18634-0-0	18741-0-0	29903-0-0	51481-0-0	57184-0-0
652-0-0	18635-0-0	18743-0-0	29908-0-0	51488-0-0	62645-0-0
653-0-0	18638-0-0	18744-0-0	32907-0-0	51532-0-0	62646-0-0
654-0-0	18640-0-0	18745-0-0	32916-0-0	51628-0-0	62647-0-0
655-0-0	18641-0-0	18748-0-0	32927-0-0	51777-0-0	62648-0-0
656-0-0	18642-0-0	18749-0-0	36485-0-0	51780-0-0	62649-0-0
657-0-0	18643-0-0	18751-0-0	36488-0-0	51785-0-0	62650-0-0
658-0-0	18644-0-0	18752-0-0	36489-0-0	51786-0-0	62651-0-0
659-0-0	18646-0-0	18754-0-0	36625-0-0	51791-0-0	62652-0-0
660-0-0	18647-0-0	18755-0-0	36632-0-0	51792-0-0	62653-0-0
661-0-0	18654-0-0	18812-0-0	36667-0-0	51794-0-0	76679-0-0
662-0-0	18656-0-0	18813-0-0	36759-0-0	51795-0-0	137311-0-0
663-0-0	18661-0-0	18814-0-0	36763-0-0	51796-0-0	137313-0-0
664-0-0	18663-0-0	18815-0-0	36780-0-0	51797-0-0	137316-0-0
697-0-0	18664-0-0	18816-0-0	36787-0-0	51800-0-0	154922-0-0
698-0-0	18665-0-0	18817-0-0	36790-0-0	51802-0-0	156286-0-0

\* Always check with the FMRC Approval Guide for specific details of the assembly. For the most up-to-date information about FM-approved roofing products and assemblies, visit [www.roofnav.com](http://www.roofnav.com).



**For more information visit  
[thermaxwallssystem.com](http://thermaxwallssystem.com)  
or call 1-866-583-2583**

**NOTICE:** No freedom from any patent owned by DuPont or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where DuPont is represented. The claims made may not have been approved for use in all countries or regions. DuPont assumes no obligation or liability for the information in this document. References to "DuPont" or the "Company" mean the DuPont legal entity selling the products to Customer unless otherwise expressly noted. **NO EXPRESS WARRANTIES ARE GIVEN EXCEPT FOR ANY APPLICABLE WRITTEN WARRANTIES SPECIFICALLY PROVIDED BY DUPONT. ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.** The buyer assumes all risks as to the use of the material. Buyer's exclusive remedy or any claim (including without limitations, negligence, strict liability, or tort) shall be limited to the refund of the purchase price of the material. Failure to strictly adhere to any recommended procedures shall release DuPont Specialty Products USA, LLC or its affiliates, of all liability with respect to the materials or the use thereof. The information herein is not intended for use by non-professional designers, applicators or other persons who do not purchase or utilize this product in the normal course of their business.

**CAUTION:** When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F (116°C). For more information, consult (Material) Safety Data Sheet ((M)SDS), call DuPont at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada. The blowing agent contained within this product can exhibit vapor flame limits under the right conditions. If specific operating conditions are such that concentrations of the blowing agent above the lower flammable limit can accumulate in areas with high relative humidity and in the presence of high-energy electrical discharges or other ignition sources, additional measures such as increased ventilation or coded electrical equipment (class one, division two) may be warranted. **DO NOT SMOKE DURING USE. DO NOT USE NEAR ANY OPEN FLAME OR ELECTRICAL SOURCE. OUTDOOR USE ONLY. INDOOR USE INCREASES LIKELIHOOD OF IGNITABLE CONDITIONS.** Read the label and (Material) Safety Data Sheet ((M)SDS) carefully before use. Wear gloves, and goggles or safety glasses. Provide adequate ventilation or wear proper respiratory protection. Contents under pressure. For outside use only.

Building and/or construction practices unrelated to insulation could greatly affect moisture and the potential for mold formation. No material supplier including DuPont can give assurance that mold will not develop in any specific system.

DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, SM or ® are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted. © 2019 DuPont.

43-D100430-enUS-0619 CDP