Everboard™
Panel Spacing Considerations.

General Notes:
The details contained herein are for the use of architects, engineers, roof design professionals, contractors, and others skilled in the art of roof design. The details provided in this technical bulletin are correct at the time of printing, but may be updated at the sole discretion of ReCB LLC at any time without notice.

This technical bulletin provides details and directions necessary to determine the proper spacing of roof cover board in a low-slope flat roof application. This technical bulletin applies to Everboard roof cover board and its variants, including private-labeled versions. Everboard roof cover board is a composite of cellulose and plastic engineered for superior impact-resistance and resistance to wind uplift.

Panel Spacing Considerations:

1. Everboard roof cover board is engineered to perform within a properly designed roof system. The proper use of Everboard roof cover board is the responsibility of the design professional.

2. Weather conditions, dew, application temperature, installation techniques and moisture drive can have adverse effects on the performance of the roof system and are beyond the control of ReCB.

3. Keep Everboard panels dry before, during and after installation. Do not install Everboard during rain, heavy fog, and any other conditions that deposit moisture on the surface of the board.

4. Moisture from inside the building can be as big a risk for the roof system as moisture from outside. The contractor installing the roof, and the design professional, should protect the roof assembly not only from excessive moisture during the construction of the building (new concrete, paint, plaster materials), but also after the building has dried in. The HVAC system must properly manage moisture generated by the occupants of the building to make sure it is vented to the outside and does not migrate into the roof system.

5. **A.** For mechanically attached roof cover board, a 1/8" spacing between panels may be used as a default; however, panel spacing may be altered based on factors like roof deck size, membrane color, ultimate deck surface temperature, and time of year the roof is installed. The designer of record should use ReCB's published physical properties (see back) to determine the proper spacing between panels (if needed).

   B. In a cover board-adhered system, no gap between Everboard cover boards is necessary.

6. For re-cover applications, the moisture content of the existing roof system must be considered by the roof design professional.

Physical Properties	
Size	4' x 8'
Thickness, Nominal	5/16" 1/2"
Pieces Per Unit	5/16" – 53 pieces 1/2" – 30 pieces
Weight, Nominal, lbs./s.f.	5/16" – 1.4 1/2" – 2.0
Compressive Strength – ASTM D2394	3990 psi
Flute Spanabillity – ASTM E661	5"
Permeance – ASTM E96	<1 perm
Mold-Resistance – ASTM D3273	10
Immersion Water Absorption (% Max) - ASTM C473	3.9
Surface Water Absorption (grams) – ASTM C473	2.8
Thermal Expansion Coefficient (inch/inch °C)[1,2]	3.1 x 10^{-5}
Moisture Expansion Coefficient (% change in length/% change in MC)[1,2]	0.0144
Moisture Content Delivered	1.5% to 2%
Equilibrated Moisture Content at 70% R.H. and 70°F	10%

[1]At temperatures in the range of 120°-160°F, the pressure that must be applied along the length of an Everboard panel, to compress the length by 0.5%, is about 125 psi. The relationship between lateral pressure and linear compression is approximately linear in this region.

[2]Everboard panels exhibit ductile, elastic properties and can sustain levels of lateral compressive stress of about 55 psi without experiencing out-of-plane distortions, such as buckling or tenting.