January 1, 2020

SUBJECT: AT-XP® High-Strength Acrylic Adhesive Installed at 0°F (-18°C)

To Whom It May Concern:

This letter addresses the installation of threaded rod and rebar anchors with AT-XP High-Strength Acrylic Adhesive into concrete that has a temperature of 0°F (-18°C) at the time of installation. Testing was conducted at the Simpson Strong-Tie® ISO 17025:2005 accredited Anchor Systems Testing Lab in West Chicago, Illinois.

The evaluation report for AT-XP (IAPMO UES ER-263) specifies the concrete temperatures that are permitted during anchor installation, along with the corresponding gel times and cure times.

Based on testing conducted by Simpson Strong-Tie, no reduction in load values was observed when anchors were installed into concrete that has a temperature of 0°F (-18°C). The table below highlights the gel time and cure time associated with concrete temperatures that range between 0°F and 14°F (-18°C and -10°C). Installation instructions noted on the AT-XP cartridge label and on page 100 of Simpson’s Anchoring, Fastening and Restoration Systems Catalog (C-A-2018) shall be followed.

<table>
<thead>
<tr>
<th>Concrete Temperature Range</th>
<th>Gel Time (minutes)</th>
<th>Cure Time (hrs.)</th>
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<tbody>
<tr>
<td>0 to 14°F (-18 to -10°C)</td>
<td>30</td>
<td>24</td>
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</table>

It is noted that the temperature of the AT-XP cartridge shall be at least 65°F (+18°C) when used for anchor installations into concrete that is between 0°F and 14°F (-18°C and -10°C).

The information in this letter is valid until 12/31/2020 when it will be re-evaluated by Simpson Strong-Tie. Please visit strongtie.com for additional pertinent information. If you have questions or need further assistance regarding this matter, please contact the Simpson Strong-Tie engineering department at 800.999.5099.

Sincerely,

SIMPSON STRONG-TIE COMPANY INC.