

Crack Repair System – Use the Right Stuff!

We understand that in our climate, large spanning ceilings and walls may have issues with Ridging and Centerline Joint Cracking (please see the DCAN-SW website for the many papers published on this topic). We also understand that **once a Centerline Crack appears, the homeowner will likely be contacting you to schedule a repair**.

Here are a few items to consider:

- 1. Centerline Joint Cracks are classified as stress cracks caused by the hygrometric expansion and contraction of building materials, in this case drywall and wood framing members see the NAHB Residential Construction Performance Guidelines 5th Edition (RCPG hereafter) at Section 10-6-2 Discussion.
- 2. If the crack is less than 1/16" no repair is **required** (see RCPG Section 10-6-7).
- 3. If the crack is greater than 1/16", then a **one-time repair** will be made near the end of the warranty period if possible (see RCPG Section 10-6-7). To be clear, the **required repair** would be fixing the crack and **patching** with texture and paint to blend in as best as possible. This repair may be visible. This repair can be done in one day, will not require people to move out, and does not involve skimming and retexturing the entire ceiling.

We mention the above points so you can let your homeowners know what is actually required regarding these cracks, then if you determine to go above and beyond for them, or have standards that exceed the RCPG, they may better understand and appreciate the measures you are taking to provide outstanding customer service for them.

Whether you elect to do a patch, or float the entire ceiling, 98% of the cost associated with the repair is labor, therefore it makes sense to use the best possible materials for repairs. DCAN has worked with industry manufacturers and subcontractors to identify the products below, which create a much stronger joint with higher crack resistance than typical repairs with regular tape and joint treatment products.

Published October 2021 dcansw.com Here is the system:

FibaFuse Max Tape: This is a high strength fiberglass mat with mesh weave over the top. This product absorbs compound well and had great crack resistance in the lab and field.

Westpac Acrylic Ad Mix: This is an acrylic bond mix that improves the strength and flexibility of joint treatment products. It should be used in place of water to mix Westpac Ultrafill.

Westpac Ultrafill: This a hot mud product that is interlaced with fiberglass. It is very strong and dries extremely hard. This product should be used to embed and wipe down the Fibafuse Max Tape in the repair area.



Regular joint treatment products can be used to finish over the top of this system.

Using the products above does not guarantee that the crack will not come back. If the home continues to move, a crack may reappear in the same location or another area. However, using these materials are a nominal cost in the scope of a repair application, and will offer you and your homeowners the best chance for a successful one-time repair.

In extreme cases, or when ceilings have repeatedly cracked over time, DCAN recommends the Double Layer Ceiling as discussed in the "*DCAN Double Up to Eliminate Ceiling Cracks*" paper, which is also available on our website.

DCAN suggest that homebuilders include this Crack Repair System in their scope of work when contracting for drywall repairs.

DCAN is finalizing another paper that will be released soon with cost effective products that can be utilized in production to mitigate cracking. This system is not meant to replace Perimeter Relief Clips, Resilient Channel, or other preventative measures that we know work well in production. Rather, it is meant to work in conjunction with these measures.

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