

## CASE STUDY: BUILT-UP ROOF REPAIR

Knowing a clients' needs, budget and goals can help contractors choose the best course of action. This owner knew that they needed a new roof, but it was simply not in the cards this year. Fortunately, they met a Castagra Certified Applicator who listened to their needs and created an affordable plan to keep the family dry this winter.

At over 30 years old, this roof in the Imperial Valley had long out-lived expectations and was many years past its prime. The previous winter's rains had exposed several leaks and the ridge had begun to deteriorate rapidly throughout the following year. The owners knew the roof would not make it another winter, but it had proven a difficult year to save up for a new roof.

### PROBLEM

Some built-up roofs use a layer of gravel to protect the asphalt layer from harmful UV rays. When areas of the gravel become bare, the asphalt underneath is exposed to the sun's rays. This creates brittle spots that eventually will chalk and wash away with the next rain. As the layers continue through these chalking and washing cycles, the rate of deterioration increases, and the trouble areas become bigger and bigger. This roof had approximately 30 areas so bare that many of them were exposed to the wood sheathing. To make matters worse, the ridge had fallen apart so badly that there was a large gap between the opposing sides.

### SOLUTION

It was obvious that pressure washing was not an option for a roof this age. Fortunately, Ecodur can typically be applied with only a brush and blower clean. Ecodur can also be thickened to help seal the edges of new mineral cap applied over rocky surfaces. Because Ecodur bonds as well to metal as it does to asphalt and other roofing substrates, it easily re-bonds the aging surface back to the gravel-stop.



### APPLICATION RESULTS

Along the ridge, all loose gravel was broomed back at least a foot, allowing for scraping of loosely embedded gravel and creating a smoother surface for the incoming mineral cap. A layer of felt was fastened along the ridge and a 12" roll of mineral cap was carefully torched to it. To ensure water tightness, mastic grade Ecodur was applied around the entire perimeter as well as at each seam.

Next, each of the 30+ holes, bad seams, bad edges, and other trouble spots was scrubbed with a wire brush and blown free of loose debris. Using Ecodur thickened to mastic grade, each trouble area was overfilled to prevent any water from sneaking past its guard.

After curing, the gravel was broomed back over the repair areas making them practically invisible from the ground.

As projects go, this wasn't one of the prettiest. But it was exactly what the owner needed and came in under their budget. The family will have no problem getting through the winter with no leaks!