TESTING THE LONG TERM PERFORMANCE OF MIRATEC TRIM

In 1998, CMI installed MiraTEC trim – unprimed and unpainted – on a picket fence outside the manufacturing plant where it is made in northeastern Towanda, Pennsylvania. For more than 10 years, the trim has been exposed to rain-filled springs, hot, humid summers, and frigid, snowy winters. Several physical property tests conducted in April 2008 confirm MiraTEC trim has delivered outstanding performance.

To assess long-term performance, CMI holds material for future testing, called “retains,” from production runs. CMI compared retains from the same production time period as the test fence material to measure any changes in properties after 10 years of exposure. The results verify the exceptionally consistent performance of MiraTEC trim. Even without primer or paint, the trim showed minimal drop off in physical properties. The average change in the results for each test are shown below.

24 Hour Water Absorption Test
Result: Less than 5% increase in water absorption
This test indicates the amount of water MiraTEC trim absorbs when submerged in water for 24 hours. The measurement indicates an increase in weight by percentage. The result measured over 10 years is excellent and outperforms competitive trim products.

24 Hour Water Soak: % Water Absorption

 Thickness Swell Test
Result: 0.05% increase in thickness
The thickness swell test is conducted by soaking MiraTEC trim in water for 24 hours and measuring the size of the trim before and after to determine how much the trim has swelled.

24 Hour Water Soak: % Thickness Swell

MOR, psi: Before vs. After 10 years of exposure

Modulus of Rupture (MOR) Test
Result: Decrease of 117.5 MOR, psi
The MOR test verifies the strength of MiraTEC trim by bending it until the trim board breaks.

Boil Swell Test
Result: 0.07% decrease in thickness
The boil swell test is similar to the thickness swell test, except MiraTEC trim is submerged in boiling water for 1/2 hour and then measured for caliper or thickness swell.

1/2 Hour Boil Test: % Thickness Swell

All of these tests are designed to help predict the long term performance of wood composite materials. These tests are regularly conducted on the production of all products made by CMI.

The performance of MiraTEC trim is among the very best in the exterior trim category today.