

INDEPENDENT EVALUATION REPORT

IBACOS is a housing innovation company that drives the research and development of new products and technologies to improve building quality and performance across the United States. IBACOS worked closely with LP[®] Building Products to develop the value that LP ArmorStrand™, featuring Dryvit TAFS 3, a textured finish alternative to traditional stucco, delivers to the builder and trade communities to enhance the application of stucco cladding systems in U.S. homes.

IBACOS and LP applied an innovative evaluation process to extract the value of the LP ArmorStrand/ Dryvit TAFS 3 system for use "in the field" to better arm builders and trades with helpful information for making informed decisions about using this product. Through a combination of in-field and off-site evaluations, IBACOS concluded that the LP ArmorStrand/Dryvit TAFS 3 system has the potential for improved:

- Labor savings
- Water resistance
- Durability

"Our findings reflect that the ArmorStrand/Dryvit TAFS 3 system clearly has positive economic value compared to three-coat stucco. It meets all necessary durability requirements to combat (natural) elements and has the potential for labor savings compared to traditional three-coat stucco applications." – IBACOS, Inc.

Time and Motion Study vs. Three - Coat Stucco

Details

The table at right shows the tasks associated with each system installation and the approximate time it took to accomplish each task. These comparisons are based on a 12'x 10' standard wall with a window assembly installed in the center of each wall. The analysis does not include any hydration cycling required for the proper application of traditional stucco scratch and brown coats, which would add time to the installation process.

Traditional Three - Coat Stucco

OSB, Drainage Plane, Window Installation	72 minutes
Bond Break	20 minutes
Casing Bead/Lath	37 minutes
Casing Bead/Lath (continued)	47 minutes
Scratch Coat	66 minutes
Curing Time/Hydration	Not Included
Brown Coat	91 minutes
Curing Time/Hydration	Not Included
Finish Coat (assumed same as Dryvit)	41 minutes
FOTAL (not including Hydration/Cure Tme)	6 hours 14 minutes



TOTAL

41 minutes

3 hours 28 minutes

Water Performance Analysis

Details

A life-cycle load test per ASTM E233 criteria subjects the surface condition of the wall to 10 specific load weights. The test panel showed no visible signs of surface cracking, thus meeting the established criteria.

A water penetration test per ASTM E331 criteria attempts to draw water through any breaches of the wall surface to the framing under stress according to ASTM E72 guidelines. The test sample showed no visible water penetration observed within the wall cavities, thus meeting the established criteria.



Energy Code Analysis

Details

The LP ArmorStrand/Dryvit TAFS3 can be applied to meet the prescriptive requirements for continuous insulation in the IECC 2012 and 2015 across different climate zones. With proper use and installation of structural framing and wall cavity insulation, the LP ArmorStrand substrate is acceptable in climate zones 1 through 5...the majority of the United States, Additional development of the system is needed to meet IECC requirements for zones 6 through 8 (extremely cold climates).

