



Surface-Applied (ASTM C932) and Integral Bonding Agents for Stucco

The Plaster/Stucco industry seems to have a problem understanding the uses and rules for bonding agents. There are several issues; the most common being the use of the wrong (interior vs. exterior) agent and the use of non-compliant (ASTM C932) exterior agents. Some of the cause for this, however, is in the labeling from the manufacturers. They are often misleading, often misguided and sometimes just downright wrong.

Let's begin with a brief discussion of the types of BAs: Interior and Exterior. Interior, gypsum plaster BAs are governed by ASTM C631 and we won't include them in our discussion as they are not intended for stucco. If your specification or your label only lists a C631 BA then you have 1) a defective spec; and, 2) the wrong product. So, for stucco applications you should have

an ASTM C932 compliant bonding agent for surface application.

Then there are two types of BAs for stucco as well: Surface-applied, as governed by C932 and Integral, which are considered admixtures and therefore not governed by standard.

Surface-Applied

All BAs used for exterior Portland Cement-Based Plaster (stucco) must meet the requirements of ASTM C932, "Standard Specification for Surface-applied Bonding Compounds for Exterior Plastering." The requirements for such compounds include, but are not limited to the following:

Section 4.1 - BAs must be tinted for easy visual inspection of the application. "Milky-white appearance" is not generally considered tinted. Look for blue, red or yellow.

Section 4.4 - BAs must not re-emulsify. Not reemulsify once or "retackify." Re-emulsification involves the break-down of the ionic/covalent cross links formed in the carboxylation process. The truth is that this process is not reversible by the presence of water after initial curing. However, the re-wetting of these compounds is common when moisture is present. While this re-wetting process does not equate to re-emulsification, it can have a negative effect on the adhesive quality of the BA. The intent of the Standard is to limit the BAs ability to re-wet or re-tackify so as to prevent the reduction in adhesive capability. So, unless the label says, "will not reemulsify", or "will not re-wet," don't use it.

It should be noted that this Section 4.4 does not appear in C932 until the adoption of the 2006 version (C932-06). Prior to the adoption of the Florida Building Code 2010 on 03/15/2012, there is no requirement for surface-applied bonding agents to be non-reemulsifying.

All that said, there are only a few commonly found products that will meet this tinted, non-reemulsifiable, non-rewettable criterion as identified on their label or in their literature. Before choosing one ask these three questions.

1. Is this product approved for “surface –applied” use?
2. Is it tinted?
3. Will it re-emulsify, re-wet or re-tackify?

The answers should be: Yes, Yes, No, in that order. If not, choose another product.

Integral

Integral bonding agents are not governed by ASTM C 932 or C 926 as they are considered admixtures. You should, however, be careful which product you choose as an admixture as many BAs are not intended for use integrally. Integral BAs include but are not limited to: 932 Link, Acryl 60. HiBond, Lambco Primer, PVA20, Acrylbond, Lanco AB609, Tuf-bond, Tuf-bond XS, and Tuf-link.

For further information, contact In-Spex, LLC at www.in-spexllc.com or (407) 709-9001.