Insulated one-coat stucco is another option for designers and contractors to consider for energy efficient claddings. One-coat stucco has been a popular and successful cladding for residential construction for over 40 years. This system was developed during the 1970’s energy crisis. New requirements for more R-Value in the exterior wall cavity meant builders needed to go from traditional 2 inch x 4 inch to 2 inch x 6 inch framing in order to make room for thicker insulation. The plaster industry responded to the need and created the “one-coat stucco system” which allowed builders to continue using 2 inch x 4 inch wood studs and meet the higher R-Values set by the energy code. The one-coat stucco system was initially designed to be placed over 1 inch of tongue and groove rigid foam. The rigid foam added the required R-value.

One-coat stucco is a proprietary system incorporating a blended cement typically applied over a rigid EPS foam sheathing board. The systems are generally considered by plaster bureaus more appropriate for residential and low rise commercial projects. One coat stucco has had good success when applied per manufacturer’s recommendations and with an approved finish coat. For more information about one-coat stucco visit: www.nocsa.org.

SPECIFYING SUCCESSFUL ONE-COAT STUCCO:
The one-coat system is actually a two-coat process: the base coat and the final or “finish” coat. Acrylic or elastomeric finishes can be used to add performance and crack reduction. The system is generally less in cost per square foot than EIFS and can be less than conventional three-coat stucco. The following are recommendations when specifying one-coat stucco:

- One-coat stucco is not recommended for smooth or fine sand finish textures
- The nominal thickness of the one-coat base should be 1½ inch rather than the code minimum 3/8 inch
- ½ inch grounds on accessories are specified and installed to ensure ½ inch base coat
- Metal plaster bases must comply with ASTM standards
- 1 ½ inch x 17 GA woven wire is preferred over the minimum 1 inch x 20 GA woven wire and will encourage ½ inch base coat
- One-coat stucco generally should be limited to Type V construction
- One-coat stucco may be applied over gypsum sheathing, rigid foams or wood based sheathings
- Follow all manufacturers recommendations
- A water-resistive barrier (WRB) compliant with the manufacturers’ recommendation should be placed behind the rigid foam sheathing
- A WRB compliant with manufacturers’ recommendations should be placed over gypsum and two layers over wood-based sheathings
- Attach lath/wire approximately 6 to 7 inches on center along framing supports

DETAILING ONE-COAT STUCCO:
Detailing for one-coat stucco is similar to conventional three-coat stucco. Flashings must be designed and installed to minimize water entry and allow for incidental moisture to “weep”.

The degree and type of flashing will depend largely on the type of building, region of the country and exposure to water. It is advised to contact a local reputable source for best practices in that region of the country with regard to one-coat stucco. This would include plaster bureaus, suppliers, manufacturers and established contractors with a proven track record.
For added crack protection, the designer may specify an acrylic mesh to be imbedded into a polymer-based cement skim coat. This will add cost to the base system, but significantly improve crack resistance. Insure the finish coat is compatible with the mesh and skim coat if an acrylic lamina (crack suppression system) is specified and/or added. It is recommended all plaster “wet goods” are supplied by the same manufacturer to ensure product compatibility.