Sto Finish System
for Insulated Concrete Forms (ICF)
Series 17.xx
November 2007

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## Finish Systems: Insulated Concrete Forms – 17.XX Series

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Sto Coatings For Insulated Concrete Forms (ICF) Components

Date: November 2007

Detail No.: 17.01

Notes:

1. Detail illustrates a generic Insulated Concrete Forms (ICF) that is suitable for Sto Coatings directly applied to the form without additional insulation.
2. Forms suitable for direct application coatings have imbedded, non-metallic form ties positioned a minimum 1/2" (13 mm) from the outer surface,
3. The forms are molded 1.5 pcf, expanded polystyrene insulation (EPS).
4. Rasp the foam surface to provide a level surface for coatings shall not expose the form ties.
5. ICFs that differ from the above may be completed by adding:
   a) 1" (25 mm) EPS insulation and EIFS coatings or,
   b) lath and StoPowerwall Stucco, Sto Primer and Sto Finish.
6. Concrete shall be allowed to cure for a minimum of 28 days prior to application of Sto coating materials.
Sto Coatings For Insulated Concrete Forms (ICF)
Components: High Impact Resistance

Notes:
1. Prepare ICF as noted in Sto Detail 17.01. Allow the concrete to cure a minimum of 28 days prior to application of Sto coatings.
2. Apply Sto Base Coat and immediately trowel in Sto Armor Mat or Sto XX Armor Mat as per Sto specifications. Allow to cure a minimum 24 hours.
3. Apply Sto Base Coat and Mesh over the initial high impact mesh application.
4. Install Sto Primer and Sto Finish.
Sto Coatings For Insulated Concrete Forms (ICF)

Features

**ICF**

**Concrete**

**Sto Adhesive**

**EPS vertical feature**

**Sto Base Coat with Sto Mesh**

**Sto Flexyl with Sto Mesh**

**EPS horizontal feature sloped a minimum 1:2**

**Sto Adhesive**

**Sto Primer**

**Sto Finish**

Notes:

1. Add features using EPS foam shapes bonded to the ICFs with Sto BTS Plus, Primer/Adhesive-B or Sto Dispersion Adhesive. Foam shape installation shall conform to Sto Details 1.04a or b.

2. Install Sto Base Coat over the features and onto the wall surface and immediately trowel in Sto Detail Mesh.

3. Install Sto Base Coat and Mesh on the rest of the wall overlapping the application from the features.

4. Install Sto Flexyl* and mesh over weather exposed sloped surfaces (Sto Detail 1.04a) and lapping onto the vertical services 4" to 6" (100 to 150 mm).

5. Prime the base coat with Sto Primer.

6. Install Sto Finish when primer is dry.

*Sto Watertight Coat is an acceptable substitute for Sto Flexyl.

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Sto Coatings For Insulated Concrete Forms (ICF)
Interior Foundation Protection

Notes:

Detail illustrates a method for protecting the ICF from rising damp through the foundation and from interior flooding.

1. Allow the concrete slab to cure for 7 (minimum) to 28 days. Install an application of Sto Watertight Coat* to the prepared concrete around the perimeter of the foundation sealing around the reinforcing bars set in the foundation.

2. Install the ICF wall pouring the concrete onto the Sto Watertight Coat.

3. Allow the concrete in the ICF to cure for a minimum 28 days.

4. Install a second application of Sto Watertight Coat and Sto Detail Mesh over the initial application and up the wall to the desired height. Use a sealant bead at the base of the wall.

5. Complete the desired wall finish on the interior surface.

6. Provide protection board and drainage around foundation perimeter (See Sto Detail 17.11).

*Sto Flexyl is an acceptable substitute for Sto Watertight Coat.

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Sto Coatings For Insulated Concrete Forms (ICF)  
Below Grade Components

Detail No.: 17.11  
Date: November 2007

Notes:
1. Allow concrete in ICF to cure for a minimum 28 days.
2. Rasp ICF so that the surface is smooth and free of form markings.
3. Apply Sto Watertight Coat to the ICF and onto the footing. Immediately imbed Sto Reinforcing Mesh.
4. Install a protective drainage medium over the Waterproofed form to allow for free drainage and to protect the ICF from back-filling damage.
5. Consult ICF manufacturer and the local code authority having jurisdiction for requirements related to control of termites and other insects.

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Sto Coatings For Insulated Concrete Forms (ICF)
Residential Window Sill

Date: November 2007
Detail No.: 17.23

Notes:
1. Detail illustrates preparation of Sto coatings around a window opening framed with a vinyl buck.
2. Detail does not illustrate the installation of the window, flashing or other opening protection required by code.
3. Install Sto Base Coat and Mesh over the ICF up to the vinyl buck flange.
4. If the selected window has a nailing flange, install the window and appropriate flashing ahead of the feature trim around the window.
5. Install the pre-wrapped feature around the window using vertical ribbons of adhesive. Allow drainage below the sill feature.
6. Non-flanged windows and flashing may be installed after the feature trim is installed.
7. Limit dimension of vinyl buck to no more than 20% of feature width.

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Sto Coatings For Insulated Concrete Forms (ICF)
Finished Opening - Sill

Date: November 2007
Detail No.: 17.25

Notes:
1. Detail illustrates installation of Sto coatings around a window opening prepared with a removable form.
2. Allow concrete to cure for 28 days prior to installing Sto coatings.
3. Remove any form release materials remaining on the concrete.

Option 1
4. Install Base Coat, Mesh, Primer and Finish wrapped onto cured concrete.
Note: Double wrap mesh at corners

Option 2
5. Apply Sto Primer and Finish as specified.

6. Install EPS insulation into the opening using Sto Adhesive. Prewrap the insulation with Base Coat and Mesh or back-wrap. Apply Sto Primer and Finish as specified.
7. Apply Sto Primer and Finish as specified.

NOTE: Detail does not illustrate installation of the window, flashing or other opening protection required by code.

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