# CITY OF LOS ANGELES

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RESEARCH REPORT: RR 24375

(CSI # 04060)

BASED UPON ICC EVALUATION SERVICE

REPORT NO. ESR-2027

REEVALUATION DUE

DATE:

May 1, 2016

Issued Date:

May 1, 2014

Code:

2011 LABC

**GENERAL APPROVAL** − Reevaluation - Easy-Spred<sup>TM</sup> Plasticizer for Mortar.

# **DETAILS**

The above assemblies and/or products are approved when in compliance with the use, description, design, installation, conditions of approval, and identification of Evaluation Report No. ESR-2027, reissued November 1, 2013, of the ICC Evaluation Service, Incorporated. The report, in its entirety, is attached and made part of this general approval.

The parts of Evaluation Report No. ESR-2027 which are excluded on the attached copy have been removed by the Los Angeles Building Department as not being included in this approval.

# The approval is subject to the following condition:

1. Type N mortar shall not be used to construct participating elements as specified in ACI 530.

Peninsula Products, Inc.

RE: Easy-Spred<sup>TM</sup> Plasticizer for Mortar

# DISCUSSION

The report is in compliance with the 2011 Los Angeles City Building Code.

This approval is based on test data in accordance with ICC-ES AC87. Copies of test results, including 28-day, one year and two year test results are on file in the office of the Engineering Research Section.

This general approval will remain effective provided the Evaluation Report is maintained valid and unrevised with the issuing organization. Any revisions to the report must be submitted to this Department, with appropriate fee, for review in order to continue the approval of the revised report.

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this approval have been met in the project in which it is to be used.

ALLEN PEERY, Chief

Engineering Research Section 201 N. Figueroa St., Room 880

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V/C R:R24375/MSWord2010 R:04/27/14 3B2/2103.8

Attachment: ICC-ES Evaluation Report No. ESR-2027 (2 Pages)



# **ICC-ES Evaluation Report**

**ESR-2027** 

Reissued November 1, 2013

This report is subject to renewal January 1, 2016.

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A Subsidiary of the International Code Council®

DIVISION: 04 00 00-MASONRY

Section: 04 05 13.23—Surface Bonding Masonry

Mortaring

**DIVISION: 09 00 00—FINISHES** 

Section: 09 24 00-Portland Cement Plastering

REPORT HOLDER:

PENINSULA PRODUCTS, INC. 3014 WEST PALMIRA AVENUE, #200 TAMPA, FLORIDA 33629 (866) 792-8623 www.easy-spred.com

**EVALUATION SUBJECT:** 

EASY-SPRED®

### 1.0 EVALUATION SCOPE

#### Compliance with the following codes:

- 2009 International Building Code® (2009 IBC)
- 2009 International Residential Code® (2009 IRC)
- 2006 International Building Code® (2006 IBC)
- 2006 International Residential Code® (2006 IRC)
- 2003 International Building Code® (2003 IBC)
- 2003 International Residential Code® (2003 IRC)

#### Properties evaluated:

- Physical
- Structural
- Durability

#### **2.0 USES**

Easy-Spred® plasticizer is a Class CLR admixture, intended to replace lime in masonry mortar prepared in accordance with Section 2103.8 of the 2009 IBC and 2006 IBC, Section 2103.7 of the 2003 IBC, Section R607.1 of the 2009 IRC and 2006 IRC or 2003 IRC.

#### 3.0 DESCRIPTION

Easy-Spred® is a pozzolanic formulation consisting of a combination of hydroxy aluminum silicates and diatomite. The material is packaged in 7-pound (3.1 kg) bags, and has a bulk density of 54 lbs/ft³ (865 kg/m³) and a specific gravity of 2.47.

#### 4.0 DESIGN AND INSTALLATION

#### 4.1 General:

Materials must be proportioned as specified and mixed in a mechanical batch mixer with an amount of clean potable water sufficient to produce a workable consistency. Table 1 presents mix designs for various mortars. A maximum of two bags [0.26 ft3 (0.0074 m3)] of Easy-Spred must be used per cubic foot of cement (0.028 m3). The product has indefinite shelf life when stored in its original container in dry form. Approximately two-thirds of the total water and Easy-Spred must be placed in the mixer and mixed for 1 to 11/2 minutes. Next, one-fourth to one-third of the total sand and all cement must be added and mixed for two minutes. Then, the remaining water and sand must be added and mixed until desired workability is achieved, usually in 6 to 8 minutes. Mortar is laid in a uniform bed without furrows and with bed joints completely full. Mortar that has commenced setting cannot be retempered or used. Under cold weather conditions, masonry materials must be at a temperature above freezing when placed, and the materials must be protected from freezing for 48 hours thereafter. Cold weather construction must be in accordance with Section 2104.3 of the 2009 IBC, 2006 IBC and 2003 IBC. Masonry cannot be placed on foundations or masonry units with frost or that are frozen. Hot weather construction must comply with Section 2104.4 of the 2009, 2006 and 2003 IBC.

#### 4.2 Mortars in Areas of Seismic Risk:

**4.2.1 IBC:** Mortars prepared according to this report are limited by Section 2106 of the 2009 IBC, 2006 IBC and 2003 IBC to the following Seismic Design Categories as part of lateral force-resisting systems:

Categories A, B, and C:

Types M, S and N

Categories D, E, and F:

Types M and S

4.2.2 IRC: Mortars prepared according to this report are limited by Sections R606.12 and R607.1 of the 2009 IRC and 2006 IRC, and Sections R606.11 and R607.1 of the 2003 IRC, to the following Seismic Design Categories as part of lateral force-resisting systems:

· Categories A, B, and C:

Types M, S and N

Categories D1 and D2:

Types M and S

## 5.0 CONDITIONS OF USE

The Easy-Spred<sup>®</sup> described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following

# Deleted by the City of Los Angeles



condition: Easy-Spred® may be used as an alternative to lime for Types M, S, and N masonry mortars as required in the 2009 IBC, 2006 IBC, the 2006 IRC, the 2003 IBC, and the 2003 IRC; provided amounts are as set forth in this report.

### 6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with the ICC-ES Acceptance Criteria for Mortar with Admixtures (AC87), dated June 2006.

# 6.2 A quality control manual.

#### 7.0 IDENTIFICATION

This product is identified by the name Easy-Spred®, the trademark "The Miracle in Mortar" printed on the bag containers, the manufacturing plant location, and the evaluation report number (ESR-2027).

TABLE 1-MIX RATIO TABLE FOR PORTLAND CEMENT-EASY SPRED® MORTARS

MORTAR TYPE	PORTLAND CEMENT <sup>1</sup> (94-POUND BAG)	EASY-SPRED <sup>®</sup> (7-POUND BAG)	MASONRY SAND <sup>2,3</sup> (ft <sup>3</sup> )
N	1	1	6
S	2	1	9
М	2	¹/₂ to 1	6

For SI: 1 pound = 0.454 kg, 1 lb./ft.<sup>3</sup> =  $0.0624 \text{ kg/m}^3$ , 1 ft<sup>3</sup> =  $0.028 \text{ m}^3$ .

<sup>&</sup>lt;sup>1</sup>Portland cement must comply with ASTM C 150.

<sup>&</sup>lt;sup>2</sup>Masonry sand must comply with ASTM C 144. <sup>3</sup>Sand unit weight is 80 lb/ft<sup>3</sup> (loose).