



ENVIRONMENTAL RELEASE EF

EARTH FRIENDLY CONCRETE FORM RELEASE AGENT

PURPOSE

ENVIRONMENTAL RELEASE EF is an earth-friendly form release agent that contributes to LEED EQ Credit 4.2. It is designed for use on a wide range of forming materials, including wood, fiberglass, steel, aluminum, plastic and architectural form liners. ENVIRONMENTAL RELEASE EF is also certified to NSF /ANSI 61, approving it for use in potable water structures.

DESCRIPTION

ENVIRONMENTAL RELEASE EF is an earth-friendly concrete form release agent. It is a truly green, biodegradable material, containing no petroleum products. ENVIRONMENTAL RELEASE EF is a water-based formula containing no VOCs, making it VOC compliant in all regions. It is ideal for architectural concrete, precast and general forming applications. The material is non-staining and minimizes concrete dusting. Properly applied, ENVIRONMENTAL RELEASE EF will not impede the adhesion of subsequent treatments to the concrete, including paints or coatings.

BENEFITS

- ◆ Contributes to LEED EQ Credit 4.2
- ◆ Certified to NSF / ANSI 61
- ◆ 100% biodegradable
- ◆ No fumes; virtually odorless
- ◆ Non-staining
- ◆ Reduced dusting
- ◆ Minimal build-up
- ◆ Easy clean up with water
- ◆ Environmentally safe
- ◆ Safe to use and store
- ◆ Non-flammable
- ◆ Lower viscosity than most oils

VOC

VOC compliant in all areas. VOC content 0 g/L.

PACKAGING

ENVIRONMENTAL RELEASE EF is packaged in 275 gallon (1040.9 L) totes, 55 gallon (208.2 L) drums and 5 gallon (18.9 L) pails.

STANDARDS

ENVIRONMENTAL RELEASE EF meets V.O.C. emission requirements for form releases (EPA limit 450 g/L).

ENVIRONMENTAL RELEASE EF meets V.O.C. compliance for the State of California, Regulation 8, Organic Compounds, Rule 3, Architectural Coatings (CA limit 250 g/L).

ENVIRONMENTAL RELEASE EF meets Corps of Engineers CW-03101, Section 2.1.2 and conforms to guidelines of ACI 301 and ACI 303.

APPLICATION

Storage: KEEP FROM FREEZING. To prevent contamination, containers should be tightly closed and properly stored. Prevent accumulation of water, dirt or other residue on covers.

Preparation: Formwork surfaces should be clean and dry before applying ENVIRONMENTAL RELEASE EF. For best results, remove any dirt, rust, scale or concrete before application.

Formwork surfaces that have been previously treated with reactive form release should be cleaned with detergent and warm water, then thoroughly rinsed and dried.

Application: Apply uniformly to all form faces and edges in a thin, continuous film. ENVIRONMENTAL RELEASE EF may be applied by spray, brush or roller. Best results are obtained by spray application using a low flow, wide-angle, flat-spray nozzle, allowing the product to dry, and then wiping the dry film with a clean, soft cloth to remove excess material or "puddles".

Unusual applications or conditions may require the technical assistance of a Symons representative.

Coverage: Spray application of ENVIRONMENTAL RELEASE EF is recommended with uniform coverage per gallon as follows:

- ◆ Hard / dense / smooth forms (plastic, fiberglass, steel, HDO, aluminum)
- ◆ 1000-1500 ft² / gal (24.6-36.9 m/L)
- ◆ Medium density overlaid plywood
- ◆ 1000-1250 ft² / gal (24.6-30.7 m/L)
- ◆ Dimensional or rough lumber, striated plywood
- ◆ 500-1000 ft² / gal (12.3-24.6 m/L)

Actual application rates depend on the type of forming surface. For example, plywood will absorb more material than steel formwork.

LIMITATIONS

Forms and equipment must be clean and dry prior to use. Excessive rain after application, prior to concrete placement, may require re-application. Forms should have a uniform thin film, with a slight waxy feel.

ESTIMATED TOUCH DRYING TIME

Tested in laboratory conditions @ 77 +/- 2°F (25 +/- 2°C) and 52% +/- 2% RH with no air movement.

1000 ft² per gal (24.6 m² per L)
18 to 20 minutes over absorptive substrates
55 to 60 minutes over non-absorptive substrates

500 ft² per gal (12.3 m² per L)
30 minutes over absorptive substrates
2 hours over non-absorptive substrates

Coverage rate, temperature, humidity, wind and absorption of substrates will affect dry time. Allow product to dry prior to placing concrete.

SHELF LIFE

Shelf life of ENVIRONMENTAL RELEASE EF in properly stored containers is one year.

PRECAUTIONS

It is mandatory to take the following precautions to protect workers and the public:

1. KEEP OUT OF THE REACH OF CHILDREN.
2. This product is combustible. Keep away from excessive heat and open flame.
3. Avoid inhalation of vapors. Ensure adequate ventilation.
4. Avoid contact with skin. Protective clothing is recommended. Contact areas should be thoroughly washed with soap and water.
5. Avoid contact with eyes. Protective goggles are recommended in case of splashing. Flush eyes with water if contact occurs.
6. Avoid ingestion of material. If ingestion occurs, contact a poison center or physician.

Additional precautions, safety information and first aid treatments are contained in the Material Safety Data Sheet.

WARRANTY

Symons warrants, for 12 months from the date of manufacture, or for the duration of the published product shelf life, whichever is less, that at the time of shipment by Symons, the product is free of manufacturing defects and conforms to Symons' published specifications in force on the date of acceptance by Symons of the order. Symons shall only be liable under this warranty if the material has been applied, used, and stored in accordance with Symons instructions in this technical data sheet.

The purchaser must examine the product when received and promptly notify Symons in writing of any nonconformity before the product is used, or no later than 30 days after such nonconformity is first discovered. If Symons, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the nonconforming product, refund the purchase price or issue a credit. This is the sole and exclusive remedy for breach of this warranty.

Only a Symons officer is authorized to modify this warranty. The sales information on the Symons website and received by the customer during the sales process does not supersede this warranty and the specifications of the product in force on the date of sale. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.

LIMITATION OF LIABILITY

Symons shall not be liable, in contract or in tort (including, without limitation, negligence, strict liability or otherwise) for loss of sales, revenues or profits; cost of capital or funds; business interruption or cost of downtime, loss of use, damage to or loss of use of other property (real or personal); failure to realize expected savings; frustration of economic or business expectations; claims by third parties (other than for bodily injuries), or economic losses of any kind; or for any special, incidental, indirect, consequential, special, punitive or exemplary damages arising in any way out of the performance of, or failure to perform, this Agreement, even if Symons could foresee or has been advised of the possibility of such damages. The Parties expressly agree that these limitations on damages are allocations of risk constituting, in part, the consideration for this agreement, and also that such limitations shall survive the determination of any court of competent jurisdiction that any remedy provided in these terms or available at law fails of its essential purpose.

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