

**SPECIFICATION SHEET**  
**CRETE-LEASE 880-VOC RELEASE AGENT**

Crete-Lease 880-VOC is a mineral oil-vegetable oil release agent used in producing architectural concrete surfaces. It meets all state and federal VOC regulations. Updated March 2005.

**Environmental Report Card**

VOC compliant.....Yes  
Non-carcinogenic.....Yes  
Biodegradable.....Yes  
Solventless.....Yes

**1. PRODUCT**

**Crete-Lease 880-VOC Release Agent**

**2. MANUFACTURER**

**Cresset Chemical Company, Inc.**  
One Cresset Center, Box 367  
Weston, OH 43569

**3. PRODUCT DESCRIPTION**

**Basic Use:** Crete-Lease 880-VOC permits easy, stain-free removal of forms, formliners, pallets, etc. from hardened concrete. It:

- Cuts form clean-up time up to 70% when properly applied
- Reduces bugholes on concrete surfaces
- Doesn't interfere with adhesion of caulk, architectural coatings, paint, sealers and curing compounds on cured concrete surfaces when properly applied
- Can be applied in sub-freezing or very hot temperatures
- Reduces incidences of skin rashes
- Promotes longer form life by acting as a water repellent from inside the wood
- Produces high visual impact (CCS 1) concrete surfaces
- Does not stain or stick from steam curing

**Limitations:** A) Not recommended for forms or form liners made from expanded polystyrene, SBR, or natural rubber or latexes made of these. Use Crete-Lease 20-VOC on any form or formliner. B) Although subfreezing temperatures have no effect on the releasing action of Crete-Lease 880-VOC, temperatures below freezing promote thicker film thicknesses which causes more bugholes.

**Ground Shipping in the USA:** Containers holding 55 gallons or 5 gallons or less (regardless of the number of containers) are not federally regulated and shipping product in the Cresset package does not require following hazardous shipping requirements. Aerosols or a container holding 275 gallons or a bulk shipment requires federally mandated procedures on the driver, container and shipping papers. See Cresset brochure "Ground Shipping" for details.

**Applicable Standards:** Exceeds California's SCAQMD rule 1113-90 (250 g/L). "Cresset Concrete Standards", a photographic appearance guide. Corps of Engineers, "Civil Works Construction Guide Specifications," CW-03101, Section 5.3 and Section 8. Corps of Engineers, "Guide Specification Military Construction," CEGS-03300, Section 10.8.

#### 4. TECHNICAL DATA

Please see Tables.

#### TABLE OF PROPERTIES

		<u>Metric</u>
<b>Color</b>	Straw	Straw
<b>Opacity</b>	Clear	Clear
<b>Freeze Damage</b>	None	None
<b>Flash Point</b>	175° F	80° C
<b>Viscosity (centipoises)</b>	13 @ 68° F	13 @ 20° C
<b>Solids</b>	None	None
<b>Density</b>	7.37 lbs/gal	882 g/L
<b>VOC (Volatile Organic Compounds)</b>	240 g/L	240 g/L
<b>VOC (Volatile Organic Compounds)</b>	2.0 lbs/gal	---

**Composition:** A proprietary blend of neutralized vegetable oils in mineral oil. Contains no waxes, no silicones...no carcinogens.

#### TABLE OF FORM AND FORMLINER COMPATIBILITY

<b>Plywood</b>	All Grades, Pre-oiled, Overlaid (LDO, MDO, HDO)
<b>Plastics</b>	Fiberglass Reinforced, ABS, PVC
<b>Coatings</b>	Epoxy, Urethane
<b>Elastomerics</b>	Urethane, Silicone
<b>Steel</b>	
<b>Aluminum</b>	
<b>Wood</b>	

#### COVERAGE WITH CRETE-LEASE 880-VOC

<u>Form Surface</u>	<u>(sq ft/gal)</u>	<u>(m2/l)</u>
Hard & Smooth	1,600	40
Pre-oiled Plywood	1,100	30
Untreated Plywood	800	20

## 5. APPLICATION

**Preparatory Work:** Form surfaces must be extremely clean to produce architectural surfaces CCS 1, CCS 2 and CCS 3. Even very small amounts of buildup, dust or debris show on the final surface. Use only non-porous form and form liner surfaces to achieve CCS 1, CCS 2 and CCS 3 concrete surfaces.

Apply Crete-Lease 880-VOC about 20 minutes before placing concrete, or up to 14 days before if treated surfaces are protected from dust and debris.

**Dilution:** Use as is...any dilution with fuel oil, diesel fuels, or mineral spirits promotes an increase in stripping difficulties, concrete build-up, bugholes, soft spots, staining and violates California rule 1113-90.

**CCS 1 Application Guidelines:** Non-porous form surfaces are critical to achieve CCS 1.

A. Wipe on an ultra thin film of Crete-Lease 880-VOC Release Agent with a clean, soft flannel cloth that is moist, not wet, with release agent. Wipe out "brush strokes". B. Spray textured form or form liners then "wipe off" with a clean, soft flannel cloth that is moist, not wet, with Crete-Lease 880-VOC Release Agent.

Properly executed, either procedure produces an ultra thin film of Crete-Lease 880-VOC Release Agent less than 0.0005 inch...about 1/3 as thick as a human hair. This ultra thin film helps produce bughole-free concrete surfaces without stains and without problems of adhesion of caulk or other coatings. Forms strip cleanly and easily.

**CCS 2 Application Guidelines:** Spray Crete-Lease 880-VOC in an ultra thin film from 0.0005 to 0.001 inch thick. Hold the spray tip 12 to 18 inches from the form. CCS 2 requires the use of non-porous forms and form liners. Only spray with flat spray tips...80015 or 8001. Adjust pressure to provide a flow rate through the spray tip of about 18 ounces per minute for the 80015 spray tip and 12 ounces per minute for the 8001 spray tip.

**CCS 3 Application Guidelines:** Spray apply Crete-Lease 880-VOC in a thin film from 0.001 to 0.0025 inch thick. Use non-porous form surfaces to produce CCS 3. Use flat spray tips 80015 or 8001. Flow rates through the spray tip should be 18 ounces per minute for the 80015 spray tip and about 12 ounces per minute for the 8001 spray tip.

**CCS 4 Application Guidelines:** Spray Crete-Lease in a film from 0.0025 to 0.0045 inch thick. Use any form or form liner, including any grade of plywood. Flat spray tip 80015 or 8001 are recommended.

**CCS 5 Application Guidelines:** Spray apply Crete-Lease Release Agent from 0.0045 to 0.0065 inch thick. Use any type of form.

**CCS 6 Application Guidelines:** Apply Crete-Lease Release Agent in the fastest, most convenient way.

### Notes:

A. Producing CCS 1, CCS 2 or CCS 3 concrete surfaces requires the use of non-porous form facings (e.g., elastomeric, steel, plastic, high density overlaid plywood, fiberglass, ABS, PVC and urethane or epoxy coatings on wood).

B. An ultra thin film (0.0005 inch) of Crete-Lease 880-VOC Release Agent releases easier than thicker films.

C. In producing CCS 1 concrete, the surface of the form or form liner must be free from defects. Joints must be watertight.

D. Protect form and form liner surfaces treated with release agent, from precipitation, dust and debris when producing CCS 1, CCS 2 and CCS 3.

E. Use Crete-Lease 20-VOC Release Agent on expanded polystyrene form liners.

**SPRAY COVERAGE RATES TO OBTAIN HIGH VISUAL IMPACT CONCRETE**

<u>Flat Spray Tip</u>	<u>Pressure</u>	<u>Optimum Coverage For CCS 2</u>	<u>Optimum Coverage For CCS 3</u>
80015 tip	30-40 psi	60 sq ft/10 sec	30 sq ft/10 sec
8001 tip	30-40 psi	40 sq ft/10 sec	20 sq ft/10 sec
800067 fine tip	50-60 psi	35 sq ft/10 sec	15 sq ft/10 sec
800050 fine tip	50-60 psi	25 sq ft/10 sec	12 sq ft/10 sec
Typical Wet Film Thickness		0.0005 to 0.001 in	0.0001 to 0.0025 in

**Notes:**

1. The coverage rates are for smooth non-porous forms.
2. Distance between form and spray tip is constant; typically between 12 and 18 inches.

**SPRAY COVERAGE RATES TO OBTAIN HIGH VISUAL IMPACT CONCRETE**  
(nominal conversion to metric)

<u>Flat Spray Tip</u>	<u>Pressure</u>	<u>Optimum Coverage For CCS 2</u>	<u>Optimum Coverage For CCS 3</u>
80015 tip	205-275 kPa	6 m <sup>2</sup> /10 sec	2.5 m <sup>2</sup> /10 sec
8001 tip	205-275 kPa	4 m <sup>2</sup> /10 sec	1.5 m <sup>2</sup> /10 sec
800067 fine tip	345-410 kPa	3 m <sup>2</sup> /10 sec	1 m <sup>2</sup> /10 sec
800050 fine tip	345-410 kPa	2 m <sup>2</sup> /10 sec	1 m <sup>2</sup> /10 sec
Wet Film Thickness		0.012 to 0.025 mm	0.025 to 0.063 mm

**Notes:**

1. The coverage rates are for smooth non-porous forms.
2. Distance between form and spray tip is constant; typically between 300 mm and 455 mm.

**6. AVAILABILITY AND COST**

**Availability:** Crete-Lease 880-VOC is available in 1 and 5 gallon containers; orange and white striped 55 gallon drums and 275 gallon MegaPaks.

**Cost:** The cost on hard, smooth surfaces is about \$0.004 per square foot (January 2001).

#### **7. LIMITED WARRANTY**

Cresset Chemical Company warrants the product against defects in materials for a period of 1 year from purchase. If Cresset receives notice of such defects during the warranty period, Cresset at its option will either replace the product or refund the purchase price. THE WARRANTY SET FORTH ABOVE IS EXCLUSIVE AND NO OTHER WARRANTY, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED. CRESSET SPECIFICALLY DISCLAIMS THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE REMEDIES PROVIDED HEREIN ARE BUYER'S SOLE AND EXCLUSIVE REMEDIES. IN NO EVENT SHALL CRESSET CHEMICAL COMPANY BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOSS OF PROFIT) WHETHER BASED ON CONTRACT, TORT OR ANY OTHER LEGAL THEORY.

#### **8. MAINTENANCE**

Cover or store drums on side to prevent water (i.e., moisture, condensation, rain) from entering the drum.