

# SHORT FORM APPLICATION GUIDE

## CAFCO® BLAZE-SHIELD® HP

### PREFERRED NOZZLE:

2-1/2" (64 mm) I.D. High output Air/Water nozzle manufactured by Hydra-Cone. The use of an expander sleeve is recommended to provide an even spray pattern. A 10 to 20 cfm (280 to 570 liters/min) **AIR COMPRESSOR** providing 60 psi (4.1 kg/cm<sup>2</sup>) air pressure at the nozzle is required.

### ACCEPTABLE NOZZLES:

2-1/2" (64 mm) I.D. RA-9 Airless or 2" (51 mm) I.D. RA-6 Airless nozzles manufactured by Hydra-Cone. The use of an expander sleeve is recommended to provide an even spray pattern.  
2-1/2" (64 mm) I.D. Boss 8 and 6 jet Airless nozzles manufactured by Contractors Consulting Service.

### UNACCEPTABLE NOZZLE:

Do not use a 2" or 2-1/2" (51 or 64 mm) I.D. Hydra-Cone (Center Stem Jet) manufactured by Hydra-Cone.

### RECOMMENDED EQUIPMENT:

Unisul - All Pneumatic Fireproofing Machines  
Contractors Consulting Service - All BOSS Machines

### MACHINE SETTINGS:

Unisul – Carding boxes or slide gates should be half closed which typically falls between settings 4 - 6 depending on the model of the machine. BOSS - Discs should be set at position 8. When feeding material, empty only one bag of material into machine hopper at a time. When the hopper is 1/4 full, empty next bag into the hopper.

### WATER RATIO:

Approximately 1.3 to 1 water to material ratio, by weight. Water pressure should be a minimum of 65 psi (4.4 kg/cm<sup>2</sup>) as measured at the nozzle. Refer to Section 9.3 of the CAFCO BLAZE-SHIELD II Application and Installation Manual for methods to determine water to product ratios. See also water usage tables on the back of this guide.

### WATER BOOSTER PUMP:

IT IS MANDATORY THAT A WATER BOOSTER PUMP WITH A 55GAL.(208 LITER) RESERVOIR TANK BE USED TO INSURE PROPER WATER PRESSURE AND VOLUME.

### HOSE SET-UP:

**TRANSFER HOSE** must be smooth interior, rubber or plastic with a 2-1/2" (64 mm) or 3" (76 mm) Inside Diameter (I.D.). Hose must be reinforced to resist kinking or cracking, and must resist static build up. Flexible hose length should not exceed 250 ft. (76 m). Metal standpipe 2-1/2" – 3" (64-76 mm) I.D. must be used when transfer height exceeds 3 stories or 36 ft (11 m) or when total length (horizontal plus vertical) of material hose were to exceed 250 ft (76 m).

**Note: Do not use** more than 50 ft. of **3" I.D. hose.** (15 m of 76 mm hose)

**LIGHTWEIGHT FLEX HOSE (WHIP HOSE)** must be rubber or plastic with a 2" (51 mm) or 2-1/2" (64 mm) Inside Diameter. Hose must be lightweight and flexible to allow mobility at the nozzle, and must resist static build up. The maximum whip hose length is 25 ft. (8 m).

### NOZZLE APPLICATION:

**Only hand held nozzles are recommended.**

### NOZZLE DISTANCE:

18" to 24" (0.4 to 0.6 m) from the substrate.

### APPLICATION RATE:

Do not apply BLAZE-SHIELD HP at a feed rate greater than 20 bags/hr.

### APPLICATION TEMPERATURE:

Maintain a minimum substrate and ambient temperature of 40°F (4°C) prior to, during and a minimum of 24 hours after application.

### SURFACE PREPARATION:

Ensure surfaces are clean and free of dirt, oil, grease, loose mill scale, paints/primers (other than those tested and found acceptable) and any other materials that may impair adhesion. For applications to painted/primed steel, contact the Isolatek International Technical Department.

(See reverse side)

**Note: Some substrates may require the use of CAFCO® BOND-SEAL or metal lath. Refer to the CAFCO BLAZE-SHIELD® II Application and Installation Manual for specific requirements.**

**WATER OVERSPRAY:**

IT IS MANDATORY THAT THE **BLAZE-SHIELD HP** BE OVERSPRAYED WITH WATER BEFORE THE END OF THE WORK DAY.

**VENTILATION:**

Provide a minimum of 4 complete air exchanges per hour until the material is dry.

**WATER TO FIBER RATIO & PRODUCTIVITY:**

1. DETERMINE THE MAXIMUM WATER OUTPUT.
  - Establish the maximum water quantity by opening the water valve to the fully open position and directing the spray into a 5 gallon pail\* for 1 minute.
  - Measure the height of the water in inches.
  - Compare the height of the water in the pail to the chart below and determine the maximum bag per hour rate.
2. DETERMINE THE BLAZE-SHIELD HP FEED RATE
  - Measure the time it takes to spray one bag. This is done by spraying material until the hopper is nearly empty. Material should be at the level of the top of the auger in hopper bottom.
  - Turn feed off, empty one bag into hopper.
  - Turn feed on and start stopwatch. When material is at the level of the top of the auger (the initial starting point) stop the stopwatch and record the time. E.G. Assume it takes 3 minutes to spray 1 bag.  
1 bag ÷ 3.0 minutes x 60 min./hr. = 20 bags/hr.
3. Adjust the material feed rate to match the water level measured.

\* - 5 gal. Pail is the one used for CAFCO BOND-SEAL. It measures 10-7/8" dia. at bottom, 11-3/8" dia. at top and is 15" high. Using any other pail (with different dimensions) will give erroneous results.

Inches of Water/minute	Time to Spray One Bag	Bags/Hour
2.0	10 min. 43 sec.	5.6
2.5	8 min. 34 sec.	7.0
3.0	7 min. 09 sec.	8.4
3.5	6 min. 07 sec.	9.8
4.0	5 min. 21 sec.	11.2
4.5	4 min. 46 sec.	12.6
5.0	4 min. 17 sec.	14.0
5.5	3 min. 54 sec.	15.4
6.0	3 min. 34 sec.	16.8
6.5	3 min. 18 sec.	18.2
7.0	3 min. 04 sec.	19.6
7.5	2 min. 51 sec.	21.0
8.0	2 min. 41 sec.	22.4

**CAUTION:** Only the listed equipment, nozzles and procedures are approved for applying CAFCO BLAZE-SHIELD HP. Deviations from any of these recommendations will result in product not meeting claims as published in Isolatak's literature. Application of BLAZE-SHIELD HP using low water ratios (less than 1.3 to 1), and/or nozzle distance greater than 24 inches (0.6 m) from the substrate, will result in low in-place densities that may not meet the minimum UL requirements. For additional information, please contact the Technical Service Department.

The performance data herein reflects our expectations based on tests conducted in accordance with recognized standard methods under controlled conditions. The sale of these products shall be subject to the Terms and Conditions of Sale set forth in the Company's invoices.

No agent, employee or representative of the Company, or its subsidiary of affiliated companies, is authorized to modify this statement.



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