

### Simplified Target

Based on minimum 22 pcf. Requirement

Yield: **32.7 BF/BAG (2.94 m2)**

|                | TARGET | RANGE       | UNIT    |
|----------------|--------|-------------|---------|
| WATER          | 10.5   | 10.0 – 11.0 | gal/bag |
| NOZZLE DENSITY | 809    | 784 - 833   | g/l     |

**Simplified Range** (Carboline recommends nozzle yields be taken a minimum, 3 times per day. Carboline recommends the use of a 9/16 to 5/8 I.D orifice)

| Yield (*) |                |      |    | 9.0 | US/G | 9.5 | US/G | 10  | US/G | 10.5 | US/G | 11.0 | US/G | Dry Density (PCF) |
|-----------|----------------|------|----|-----|------|-----|------|-----|------|------|------|------|------|-------------------|
|           |                |      |    | 34  | L    | 36  | L    | 38  | L    | 40   | L    | 42   | L    |                   |
| 2.68      | m <sup>2</sup> | 28.8 | BF | 835 |      | 863 |      | 891 |      | 919  |      | 947  |      | 25.0              |
| 2.79      | m <sup>2</sup> | 30.0 | BF | 802 |      | 829 |      | 855 |      | 882  |      | 909  |      | 24.0              |
| 2.91      | m <sup>2</sup> | 31.3 | BF | 768 |      | 794 |      | 820 |      | 845  |      | 871  |      | 23.0              |
| 3.04      | m <sup>2</sup> | 32.7 | BF | 735 |      | 760 |      | 784 |      | 809  |      | 833  |      | 22.0              |

(\*) Yield based on 1-inch (25.4mm) thickness. All weights shown are measured in grams. Cup weights are based on an actual 1000ml (1l) cup as supplied by Carboline (contact your local Carboline Fireproofing representative for cups).

**Non-Carboline alternate cups can be purchased from major home improvement suppliers, these cups average 1038 ml when filled to the top. If utilizing these cups, multiply the cup weight by an average of 1.038 to provide accurate density/yield values.**

### Supplementary Information

#### Nozzle Density

1. Spray un-injected TYPE 7GP directly into the Carboline 1000ml cup. Position the nozzle 12-18" above the cup and overfill.
2. Strike off any excess TYPE 7GP and level to the top of the container.
3. Place an empty container on the scale and press "on/tare"
4. Replace the tared container with the identical container, filled with TYPE 7GP and record the net weight.
5. Cross reference the above simplified range to determine yield and adjust water, mixing time and/or air pressure accordingly.

#### Calculation

To calculate yield, follow the formula noted below:

$$\text{Yield} = 12 \times (\text{Gallons H}^2\text{o/Bag} \times 8.34 + \text{Bag Weight}) / \text{Nozzle Density}$$

To convert g/L to pcf for Nozzle Density, follow the formula below:

$$\text{g/L} \times 0.06243$$