

Simplified Target

Based on minimum 40 pcf. Requirement

Yield: **18.6 BF/BAG (1.63 m²)**

	TARGET	RANGE	UNIT
WATER	7.0	6.5 – 7.5	gal/bag
NOZZLE DENSITY	1121	1078 - 1164	g/l

Simplified Range (Carboline recommends nozzle yields be taken a minimum, 3 times per day. Carboline recommends the use of a 1/2 I.D orifice)

Yield (*)				6.5	US/G	7.0	US/G	7.5	US/G	8.0	US/G	8.5	US/G	Dry Density (PCF)
				24	L	26	L	28	L	30	L	32	L	
1.63	m ²	17.5	BF	1145		1191		1237		1282		1328		42.5
1.73	m ²	18.6	BF	1078		1121		1164		1207		1250		40.0
1.84	m ²	19.8	BF	1010		1051		1091		1132		1172		37.5
1.97	m ²	21.3	BF	943		981		1018		1056		1094		35.0

(*) 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 7HD directly into the Carboline 1000ml cup. Position the nozzle 12-18" above the cup and overfill.
2. Strike off any excess TYPE 7HD 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 7HD 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:

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