

### Simplified Target

Yield: **43.7 BF/BAG (4.06 m2)**

	TARGET	RANGE	UNIT
ACCELERATOR A-20	1260	1250 – 1270	g/l
WATER	8.5	8.0 – 9.0	gal/bag
NOZZLE DENSITY	533	514 – 551	g/l

**HOLD POINT:** Yields measured in excess of 45.1 BF/Bag will result in dry densities below the minimum 15 PCF as published in the Underwriters Laboratories Inc.® Fire Resistance Directory.

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

Yield (*)				8.0	US/G	8.5	US/G	9.0	US/G	9.5	US/G	10.0	US/G	Dry Density (PCF)
				30	L	32	L	34	L	36	L	38	L	
3.81	m <sup>2</sup>	41.0	BF	547		567		586		606		626		16.5
3.93	m <sup>2</sup>	42.3	BF	531		550		569		588		607		16.0
4.06	m <sup>2</sup>	43.7	BF	514		533		551		569		588		15.5
4.19	m <sup>2</sup>	45.1	BF	498		515		533		551		569		15.0

(\*) 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

#### Accelerator A-20 Mixing

*(mix four 50 lb Bag/34 Gallons Water (total solution equals 44 gallons))*

- Mix accelerator A-20 as directed on the product data sheet. Allow bubbles in the solution to pop before checking density.
- Use a 1-liter plastic container, place on scale and zero/tare container.
- Fill the container level to the top with A-20 solution.
- If weight is below 1265 g/l, add additional A-20 to mix until target is reached.
- As an alternate to 1-3 above, place a hydrometer in the solution and determine the specific gravity.

Bags/HR	Accelerator A-20 Flow Rate (15 pcf)	
	Seconds to fill 1-liter cup	Alum. Pump Setting (%)
5	318	5
10	129	14
15	84	24
20	63	33
25	51	43
30	43	52

#### Nozzle Density

- Set the accelerator flow rate to a quick dribble.
- Commence spraying and pump for roughly 60 seconds until the system stabilizes.
- After 60 seconds, spray TYPE 5GP directly into the Carboline 1000ml cup. Position the nozzle 12-18" above the cup and overfill.
- Strike off any excess TYPE 5GP and level to the top of the container. Wait a further 60 seconds or until such time the material has stopped swelling. Again, strike level with the top of the container.
- Place an empty container on the scale and press "on/tare"
- Replace the tared container with the identical container, filled with TYPE 5GP and record the net weight.
- Cross reference the above chart to determine yield and adjust injection flow rate as required.



# SOUTHWEST TYPE 5GP™

## SIMPLIFIED YIELD CHART – UN-INJECTED

### Simplified Target

Yield: **31.4 BF/BAG (2.91 m2)**

	TARGET	RANGE	UNIT
WATER	8.5	8.0 – 9.0	gal/bag
NOZZLE DENSITY	741	716 - 767	g/l

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

Yield (*)				8.0	US/G	8.5	US/G	9.0	US/G	9.5	US/G	10.0	US/G	Dry Density (PCF)
				30	L	32	L	34	L	36	L	38	L	
2.29	m <sup>2</sup>	24.6	BF	911		944		976		1009		1041		28.0
2.47	m <sup>2</sup>	26.5	BF	846		876		906		937		967		26.0
2.67	m <sup>2</sup>	28.8	BF	781		809		837		865		893		24.0
2.91	m <sup>2</sup>	31.4	BF	716		741		767		793		818		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 5GP directly into the Carboline 1000ml cup. Position the nozzle 12-18" above the cup and overfill.
2. Strike off any excess TYPE 5GP 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 5GP 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:

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



# SOUTHWEST TYPE 5MD™

## SIMPLIFIED YIELD CHART – INJECTED

### Simplified Target

Based on minimum pcf requirement as shown.

(>434 psf Bond Strength at a **target dry density of 15.5 pcf**)  
Yield: **43.7 BF/BAG (4.06 m<sup>2</sup>)**

	TARGET	RANGE	UNIT
ACCELERATOR A-20	1260	1250 – 1270	g/l
WATER	8.5	8.0 – 9.0	gal/bag
NOZZLE DENSITY	533	514 – 551	g/l

(>1,000 psf Bond Strength at a **target dry density of 16.5 pcf**)  
Yield: **41.0 BF/BAG (3.81 m<sup>2</sup>)**

	TARGET	RANGE	UNIT
ACCELERATOR A-20	1260	1250 – 1270	g/l
WATER	8.5	8.0 – 9.0	gal/bag
NOZZLE DENSITY	567	547 - 586	g/l

(>3000 psf Bond Strength at a **target dry density of 22 pcf**)  
Yield: **30.8 BF/BAG (2.86 m<sup>2</sup>)**

	TARGET	RANGE	UNIT
ACCELERATOR A-20	1200	1190 - 1210	g/l
WATER	8.5	8.0 – 9.0	gal/bag
NOZZLE DENSITY	756	730 - 782	g/l

**HOLD POINT:** Yields measured in excess of 45.1 BF/Bag will result in dry densities below the minimum 15 PCF as published in the Underwriters Laboratories Inc.® Fire Resistance Directory.

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

Yield (*)				8.0	US/G	8.5	US/G	9.0	US/G	9.5	US/G	10.0	US/G	Dry Density (PCF)
				30	L	32	L	34	L	36	L	38	L	
2.86	m <sup>2</sup>	30.8	BF	730		756		782		808		834		22
3.49	m <sup>2</sup>	37.6	BF	597		618		640		661		682		18.0
3.81	m <sup>2</sup>	41.0	BF	547		567		586		606		626		16.5
4.06	m <sup>2</sup>	43.7	BF	514		533		551		569		588		15.5

(\*) 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

#### Accelerator A-20 Mixing

*(15.5- 16.5 PCF: mix four 50 lb Bag/34 Gallons Water (total solution equals 44 gallons)*

*(22 PCF: mix three 50 lb Bag/37.5 Gallons Water (total solution equals 45 gallons)*

1. Mix accelerator A-20 as directed on the product data sheet. Allow bubbles in the solution to pop before checking density.
2. Use a 1-liter plastic container, place on scale and zero/tare container.
3. Fill the container level to the top with A-20 solution.
4. If weight is below 1265 g/l, add additional A-20 to mix until target is reached.
5. As an alternate to 1-3 above, place a hydrometer in the solution and determine the specific gravity.

Bags/HR	Accelerator A-20 Flow Rate (15 pcf)	
	Seconds to fill 1-liter cup	Alum. Pump Setting (%)
5	318	5
10	129	14
15	84	24
20	63	33
25	51	43
30	43	52

Bags/HR	Accelerator A-20 Flow Rate (16.5 pcf)	
	Seconds to fill 1-liter cup	Alum. Pump Setting (%)
5	1637	1
10	278	6
15	163	11
20	117	16
25	93	21
30	77	27

#### Nozzle Density

1. Set the A-20 solution flow rate to a quick dribble.
2. Commence spraying and pump for roughly 60 seconds until the system stabilizes.
3. After 60 seconds, spray TYPE 5MD directly into the Carboline 1000ml cup. Position the nozzle 12-18" above the cup and overfill.
4. Strike off any excess TYPE 5MD and level to the top of the container. Wait a further 60 seconds or until such time the material has stopped swelling. Again, strike level with the top of the container.
5. Place an empty container on the scale and press "on/tare"
6. Replace the tared container with the identical container, filled with TYPE 5MD and record the net weight.
7. Cross reference the above chart to determine yield and adjust injection flow rate as required based on bond strength requirements. A minimum density of 16.5 pcf is required to meet 1,000 psf bond strength.

#### 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:

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



# SOUTHWEST TYPE 5MD™

## SIMPLIFIED YIELD CHART – UN-INJECTED

### Simplified Target

Based on minimum 22 pcf. Requirement

Yield: **31.4 BF/BAG (2.91 m<sup>2</sup>)**

	TARGET	RANGE	UNIT
WATER	8.5	8.0 – 9.0	gal/bag
NOZZLE DENSITY	741	716 - 767	g/l

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

Yield (*)				8.0	US/G	8.5	US/G	9.0	US/G	9.5	US/G	10.0	US/G	Dry Density (PCF)
				30	L	32	L	34	L	36	L	38	L	
2.29	m <sup>2</sup>	24.6	BF	911		944		976		1009		1041		28.0
2.47	m <sup>2</sup>	26.5	BF	846		876		906		937		967		26.0
2.67	m <sup>2</sup>	28.8	BF	781		809		837		865		893		24.0
2.91	m <sup>2</sup>	31.4	BF	716		741		767		793		818		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 5MD directly into the Carboline 1000ml cup. Position the nozzle 12-18" above the cup and overfill.
2. Strike off any excess TYPE 5MD 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 5MD 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:

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

### Simplified Target

Yield: **43.7 BF/BAG (4.06 m2)**

	TARGET	RANGE	UNIT
ACCELERATOR A-20	1260	1250 – 1270	g/l
WATER	12.0	11.0 – 13.0	gal/bag
NOZZLE DENSITY	569	551 - 588	g/l

**HOLD POINT:** Yields measured in excess of 45.1 BF/Bag will result in dry densities below the minimum 15 PCF as published in the Underwriters Laboratories Inc.® Fire Resistance Directory.

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

Yield (*)				9.0	US/G	10.0	US/G	11.0	US/G	12.0	US/G	13.0	US/G	Dry Density (PCF)
				30	L	32	L	34	L	36	L	38	L	
3.81	m <sup>2</sup>	41.0	BF	547		567		586		606		626		16.5
3.93	m <sup>2</sup>	42.3	BF	531		550		569		588		607		16.0
4.06	m <sup>2</sup>	43.7	BF	514		533		551		569		588		15.5
4.19	m <sup>2</sup>	45.1	BF	498		515		533		551		569		15.0

(\*) 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

#### Accelerator A-20 Mixing

(mix four 50 lb Bag/34 Gallons Water (total solution equals 44 gallons))

1. Mix accelerator A-20 as directed on the product data sheet. Allow bubbles in the solution to pop before checking density.
2. Use a 1-liter plastic container, place on scale and zero/tare container.
3. Fill the container level to the top with A-20 solution.
4. If weight is below 1260 g/l, add additional A-20 to mix until target is reached.
5. As an alternate to 1-3 above, place a hydrometer in the solution and determine the specific gravity.

Bags/HR	Accelerator A-20 Flow Rate (15 pcf)	
	Seconds to fill 1-liter cup	Alum. Pump Setting (%)
5	318	5
10	129	14
15	84	24
20	63	33
25	51	43
30	43	52

#### Nozzle Density

1. Set the accelerator flow rate to a quick dribble.
2. Commence spraying and pump for roughly 60 seconds until the system stabilizes.
3. After 60 seconds, spray TYPE 5AR directly into the Carboline 1000ml cup. Position the nozzle 12-18" above the cup and overflow.
4. Strike off any excess TYPE 5AR and level to the top of the container. Wait a further 60 seconds or until such time the material has stopped swelling. Again, strike level with the top of the container.
5. Place an empty container on the scale and press "on/tare"
6. Replace the tared container with the identical container, filled with TYPE 5AR and record the net weight.
7. Cross reference the above chart to determine yield and adjust injection flow rate as required



# SOUTHWEST TYPE 7GP™

## SIMPLIFIED YIELD CHART – INJECTED

### Simplified Target

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

	TARGET	RANGE	UNIT
ACCELERATOR A-20	1275	1250 – 1300	g/l
WATER	10.5	10.0 – 11.0	gal/bag
NOZZLE DENSITY	809	784 - 833	g/l

**HOLD POINT:** Yields measured in excess of 32.7 BF/Bag will result in dry densities below the minimum 22 PCF as published in the Underwriters Laboratories Inc.® Fire Resistance Directory.

**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

#### Accelerator A-20 Mixing

(mix four 50 lb Bag/34 Gallons Water (total solution equals 46 gallons))

1. Mix accelerator A-20 as directed on the product data sheet. Allow bubbles in the solution to pop before checking density.
2. Use a 1-liter plastic container, place on scale and zero/tare container.
3. Fill the container level to the top with A-20 solution.
4. If weight is below 1250 g/l, add additional A-20 to mix until target is reached.
5. Target flow rate for Accelerator A-20 to fill a 1-liter cup is 120 seconds.

#### Nozzle Density

1. Set the accelerator flow rate to a quick dribble.
2. Commence spraying and pump for roughly 60 seconds until the system stabilizes.
3. After 60 seconds, spray TYPE 7GP directly into the Carboline 1000ml cup. Position the nozzle 12-18" above the cup and fill.
4. Place an empty container on the scale and press "on/tare"
5. Replace the tared container with the identical container, filled with TYPE 7GP and record the net weight.
6. Cross reference the above chart to determine yield and adjust injection flow rate as required.

### 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:

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



### Simplified Target

Based on minimum 22 pcf. Requirement

Yield: **31.6 BF/BAG (2.94 m2)**

	TARGET	RANGE	UNIT
WATER	9.5	9.0 – 10.0	gal/bag
NOZZLE DENSITY	786	760 - 811	g/l

**Simplified Range** (Carboline recommends nozzle yields be taken a minimum, 3 times per day. Carboline recommends the use of a 3/8 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	
2.59	m <sup>2</sup>	27.8	BF	864		893		922		951		979		25.0
2.69	m <sup>2</sup>	29.0	BF	830		857		885		913		940		24.0
2.81	m <sup>2</sup>	30.3	BF	795		821		848		875		901		23.0
2.94	m <sup>2</sup>	31.6	BF	760		786		811		836		862		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 7TB directly into the Carboline 1000ml cup. Position the nozzle 12-18" above the cup and overfill.
2. Strike off any excess TYPE 7TB 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 7TB 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:

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

### Simplified Target

Based on minimum 40 pcf. Requirement

Yield: **18.6 BF/BAG (1.63 m<sup>2</sup>)**

	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 <sup>2</sup>	17.5	BF	1145		1191		1237		1282		1328		42.5
1.73	m <sup>2</sup>	18.6	BF	1078		1121		1164		1207		1250		40.0
1.84	m <sup>2</sup>	19.8	BF	1010		1051		1091		1132		1172		37.5
1.97	m <sup>2</sup>	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:

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