



Estimating Guide

NCFI Polyurethanes Spray-in-Place Systems

NCFI spray polyurethane systems are two different liquids in drums, sold as a set. The price of the drum set is based on the pounds of liquid in the drums. When sprayed, the liquids form a solid mass of polyurethane foam. The amount of finished foam that can be created from the drum set is the YIELD, which is measured in board feet (bd ft). One bd ft is one square foot (ft²) of surface area that is one inch thick. When the foam is sprayed at a thickness greater than one inch, the number of square feet (ft²) is multiplied by the inches of thickness. To calculate how much foam you require to complete a job, multiply the square feet of area by the thickness of the foam to be sprayed.

If the area is 1000 ft² and you want to spray the foam 2½” thick, then multiply 1000 ft² x 2½” which equals 2500 bf of foam required to spray the area.

****example** 1000 ft² X 2½” = 2500 bd ft

| | | | | | |
|------------------------|--------------------|---|-------------------|---|-------------------------|
| | Area to be sprayed | | Thickness of foam | | Amount of foam required |
| Figure your job here → | | X | | = | |

The cost of a bd ft of foam is calculated by dividing the price of a drum set of chemicals by the estimated YIELD of the drum set.

If the set of chemicals cost \$2000 and the estimated yield is 4000 board feet then:

**** example** \$2000 ÷ 4000 = \$0.50

| | | | | | |
|------------------------|----------------------|---|-----------------|---|---------------------|
| | Cost of chemical set | | Estimated Yield | | Cost per board foot |
| Figure your job here → | | ÷ | | = | |

To calculate the cost of chemicals for a job, multiply the cost per bf by the total number of boardfeet required for the job.

****example** \$0.50 X 2500 bd ft = \$1250.00

| | | | | | |
|------------------------|-------------------|---|-------------------------|---|-------------------------------|
| | Cost per board ft | | Amount of foam required | | Cost of chemicals for the job |
| Figure your job here → | | X | | = | |

This calculation applies to any spray system; roofing or insulation.

****The numbers used in this example are not to be considered accurate for the cost or yield of a set of chemicals. Contact your NCFI Account Manager for current pricing. See the back page for yield estimates.**

Estimated Yield

If you know from experience what yield to expect from a given NCFI Polyurethanes Spray System, use your own figures. The below yields are considered “typical” for job-site conditions. Many factors influence foam yield. Some of these factors which effect foam yield are listed under the table. Your own yield figures calculated from your own job experience will be the most accurate for you.

| System | Density lb/ft ³ | Pounds per set | Estimated Board Ft per set | Estimated Board ft/lb |
|--------|-------------------------------|-------------------|----------------------------------|--------------------------|
| 10-011 | 2.8 | 1023 | 2700 - 3000 | 2.7 - 3.0 |
| 11-015 | 2.0 | 1035 | 3600 - 4000 | 3.4 - 3.9 |
| 11-016 | 2.0 | 1035 | 3600 - 4000 | 3.4 - 3.9 |
| 11-017 | 2.0 | 1035 | 3600 - 4000 | 3.4 - 3.9 |
| 11-018 | 2.0 | 1035 | 3600 - 4000 | 3.4 - 3.9 |
| 11-019 | 1.75 | 1035 | 4100 - 4600 | 3.9 - 4.4 |
| 11-020 | 2.0 | 1035 | 3600 - 4000 | 3.4 - 3.9 |
| 12-002 | 0.5 | 1006 | 14,000 -16,000 | 13.5 - 16 |

FACTORS WHICH REDUCE YIELD

- Applying in multiple lifts
- Applying to cold surfaces
- Applying foam in cold ambient temperatures
- Applying foam chemicals not hot enough
- Applying foam to rough surfaces
- Chemicals not on proper ratio
- Applying foam overhead with more fallout
- Applying foam in windy conditions
- Varying Thickness
- Applicator Skill
- Loss of Blowing Agent
- Inadequate chemical storage condition

FACTORS WHICH INCREASE YIELD

- Applying foam at high altitude
- Applying foam to hot surfaces
- Spraying foam during hot ambient temperatures
- Proper Equipment Set up
- Use of Regulator Tree on Resin drum
- Good applicator technique - minimize overspray
- Spray foam systems designed for ambient temperature and location

