TechTip G5 – On Ratio

Many SPF contractors find that their B-side drums do not empty at the same time as their A-side drums and worry that their equipment might be malfunctioning. But before tearing down and rebuilding your pumps, consider the density differences between the A- and B- components.
SPF proportioning pumps are designed to process A- and B-components at a ratio of 1:1 by volume, not by weight. However, many SPF systems houses package their materials in drums or other containers by equal weight.

For example, SPF systems are typically packaged in 55-gallon drum sets: "A" being designated for the isocyanate component (pMDI) and "B" for the resin component. If both drums weigh the same, the volume of isocyanate (A) is less than the resin (B) due to the specific gravity differences of the two materials. Simply stated, one pound of isocyanate (A) will be less volume than one pound of resin (B). Therefore, there is more volume of resin in a drum set of equal weight. As the material is processed (1:1 by volume) there will be resin left over.

If you find that you chronically have excess resin (B-component), ask your supplier if they ship sets by equal weight or equal volume.

ABOUT THE SPRAY POLYURETHANE FOAM ALLIANCE (SPFA)

Founded in 1987, the Spray Polyurethane Foam Alliance (SPFA) is the voice, educational and technical resource, for the spray polyurethane foam industry. A 501(c)6 trade association, the alliance is composed of contractors; manufacturers and distributors of polyurethane foam, related equipment and protective coatings; and consultants who provide inspections and other services. The organization supports the best practices and the growth of the industry through several core initiatives, which include educational programs and events, the SPFA Professional Installer Certification Program, technical literature and guidelines, legislative advocacy, research, and networking opportunities. For more information, please use the contact information and links provided in this document. www.sprayfoam.org

DISCLAIMER

THIS DOCUMENT IS MADE AVAILABLE "AS IS" AND WITHOUT WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SATISFACTORY QUALITY, AND NON-INFRINGEMENT. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, SPFA, ITS OFFICERS, DIRECTORS, EMPLOYEES, AUTHORIZED AGENTS AND VOLUNTEERS DISCLAIM ANY AND ALL LIABILITY OR RESPONSIBILITY FOR ANY LOSSES, DAMAGES, COSTS AND/OR INJURIES OF ANY KIND OR NATURE ARISING OUT OF OR RESULTING FROM THE USE AND/OR RELIANCE UPON THE CONTENTS OF THIS DOCUMENT.

DOCUMENT HISTORY

Date	Sections Modified	Description of Changes
Unknown	New Document	
January 2021	New Format	New TechTip Format