

Technical Data Sheet

Typical Physical Properties

R-Value (ASTM C518)	3.80 @ 1"
Core Density (ASTM D1622)	0.40 pcf
Dimensional Stability (ASTM D2126)	< 10%
Tensile Strength (ASTM D1623)	4.2 psi
Open-Cell Content (ASTM D1940)	>98%
Air Impermeable (ASTM E283)	< 0.02 (L/s-m ²)
Resin Appearance	Clear Amber
Reactivity Profile @ 77°F	Initiation: 2-3"
Reactivity Profile @ 77°F	Rise: 9-11"
Density (lb./gal) US	9.26 lbs.
Viscosity @ 77°F: Resin (B) Component	320 cps
Noise Reduction Coefficient Rating (ASTM C423)	0.55
Sound Transmission Class Rating (ASTM E90-09)	38

Equipment Settings

Pre-Heaters: Temperature Iso (A) Component	135°F
Pre-Heater Temperature Resin (B) Component	135°F
Hose Heat Temperature	135°F
Mixing Ratio	1:1 by Volume
Fluid Pressure	1,100-1,400 PSI Dynamic

Application Parameters

Storage Temperature	50°F - 95°F
Ambient Air Temperature	40°F - 180°F
Substrate Temperature	60°F - 120°F
Moisture Content of Substrate	Less than 20%
Maximum Lift Per Pass	Not to exceed 6"
Recommend Mix Chamber Size	10-15 lbs./min. (i.e. Graco AR4242)

Mixing Instructions

Resin (B Side): Mix thoroughly for 20-30 minutes prior to use.

Equipment and Application Parameters

The values represented in the Equipment and Application Parameter Chart provides initial optimum settings. Actual operating ranges will vary as ambient air, humidity, moisture and substrate temperatures vary. Extreme conditions will affect the yield, adhesion and cured physical properties of the foam. Applicator must make adjustments as conditions vary.

Flammability Characteristics

IAPMO-ES Report No.	599
IAPMO-ES AC377, Appendix X	Pass
NFPA 286	Pass

Maximum Thickness Tested (Tested Only - Not a limit on application thickness)

Wall Cavities	10 inches
Ceiling Cavities in Attics and Crawlspace	14 inches
Flammability (ASTM E84)	Class 1 @ 4"
Flame Spread (ASTM E84)	Class 1 < 25
Smoke Development (ASTM E84)	Class 1 < 350

Product Type

VPC-OneStroke is a 100% water blown, high yield, low density open-cell foam, which contain Zero ozone depleting blowing agents. VPC-OneStroke is designed to provide significant control of air infiltration along with a high R-value per inch.

Recommended Uses

VPC-OneStroke is an insulation system designed for use in residential, commercial and industrial applications. Typical areas where spray polyurethane foam is applied are: exterior walls, vented and un-vented attic assemblies, between floors, etc. Suitable for application to most common construction materials including wood, masonry, concrete and metal. Multiple layers can be applied to reach the desired thickness and R-Value.

Approved Intumescent Coatings

Thermal Barrier: The following intumescent coatings when installed per manufacturer specifications are approved as thermal barrier alternatives for VPC-OneStroke by the International Building Code (IBC) section 2603.4 or International Residential Code (IRC) section R316.4 when all of the following apply:

Alternative Thermal Barrier Assemblies

Fire-Protective Coating/Covering

Type	DC315
Min. Thickness (mils)	18 WFT (12 DFT)
Max. SPF Thickness (in.) Walls/Vertical	10
Max. SPF Thickness (in.) Ceilings/Overhead	12

- VPC-OneStroke shall not exceed 10 inches (254 mm) on walls and other vertical surfaces and 12 inches (305 mm) on ceilings and other horizontal and overhead surfaces.
- VPC-OneStroke is coated with a minimum 18 mils (0.46 mm) wet mil thickness: 12 mils (0.3 mm) dry film thickness. Each coating should be applied in accordance with the coating manufacturer's instructions.

Ignition barrier not required in unvented attics per IRC/IBC 316.6/2103.9.

Alternative Ignition Barrier Assemblies

Fire-Protective Coating/Covering

Type	DC315	FS-IB
Min. Thickness (mils)	4 WFT (3DFT)	6 WFT (3DFT)
Theoretical App. Rate:	.25gal/100ft ²	.38 gal/100ft ²
Max. SPF Thickness (in.) Walls/Vertical	10	10
Max. SPF Thickness (in.) Ceilings/Overhead	12	15

Flushing Procedure

Before VPC-OneStroke is introduced to any equipment, purge any previous material from your system. Turn off and disconnect air to all transfer pumps. Remove the drum pumps from the ISO and Resin drums and wipe pumps and dip tubes clean. Ensure Resin drum pump housing is emptied. Place the drum pumps and dip tubes in Victory Polymers' ISO and VPC-OneStroke drums. Reconnect or turn on the air to the drum pumps. Use the drum pumps to purge the ISO and Resin supply and recirculation hoses back to their respective drums or into containers for reuse. One to two gallons of material are normally purged, depending on hose length. When finished and changing into another system, **flush the "B" Side (resin side)** with 3-4 gallons of water.

Thermal Barrier

IRC and IBC codes require that SPF be separated from the interior of a building by an approved fifteen (15) minute thermal barrier, such as 1/2" gypsum wall board or equivalent, installed per manufacturer's instructions and corresponding code requirements. There are exceptions to the thermal barrier requirement: (1) Code authorities may approve coverings based on fire tests specific to the SPF application. For example, covering systems that successfully pass large scale tests may be approved by code authorities in lieu of a thermal barrier; (2) SPF protected by 1" thick masonry does not need a thermal barrier. Certain materials that offer protection from ignition, called "ignition barriers," may not be considered as thermal barrier alternatives unless they comply with NFPA 286 or other similar full-scale tests. Applicators should request test data and code body approvals or other written indications of acceptability under the code to be sure that the product selected offers code-compliant protections.

Safety and Handling

Respiratory protection is **MANDATORY!** Victory Polymers requires that supplied air and a full-face mask be used during the application of any spray applied foam system. Contact Victory Polymers Corp. for a copy of the Model Respiratory Protection Program developed by CPI or visit their web site at www.polyurethane.org. Persons with known respiratory allergies should avoid exposure to the "A" component. The "A" component contains reactive isocyanate groups. The materials must be handled and used with adequate ventilation. The vapors must not exceed the TLV (0.02 parts per million) for isocyanates. Avoid breathing vapors. Wear a NIOSH approved respirator. If inhalation of vapors occurs, remove victim from contaminated area and administer oxygen if breathing is difficult. Call a physician immediately. Avoid contact with skin, eyes, and clothing. Open containers carefully, allowing any pressure to be relieved slowly and safely.

Wear chemical safety goggles and rubber gloves when handling or working with these materials. In case of eye contact, immediately flush with large amounts of water for at least fifteen minutes. Consult a physician immediately. In case of skin contact, wash area with soap and water. Wash clothes before reuse. Applicators should ensure the safety of the jobsite and construction personnel by posting appropriate signs warning that all "hot work" such as welding, soldering, and cutting with torches should take place no less than 35 feet from any exposed foam. If "hot work" must be performed all spray polyurethane foam should be covered with an appropriate fire or welder's blanket, and a fire watch should be provided.

In Case of Spills or Leaks

- Utilize appropriate personal protective equipment
- Ventilate area to remove vapors
- Contain and cover spilled material with a loose, absorbent material such as oil-dry, vermiculite, sawdust or Fuller's earth
- Shovel absorbent waste material into proper waste containers
- Wash the contaminated areas thoroughly with hot, soapy water
- Report sizeable spills to proper environmental agencies

In Case of Fire

Extinguishing Media: Dry chemical extinguishers such as mono ammonium phosphate, potassium sulfate, and potassium chloride. Additionally, carbon dioxide, high expansion (proteinic) chemical foam, or water spray for large fires.

Positive pressure ventilation of the work area is recommended to minimize the accumulation of vapors in the work area during the application. Improper application techniques of this foam system must be avoided. This includes excessive thickness, off ratio material, and spraying into rising foam. The potential results of improperly applied materials may include but is not limited to excessive heat build-up and may result in a fire or offensive odors which may not dissipate with time and/or poor product performance due to improper density of the applied material. Large masses of sprayed materials should be avoided. When large masses are generated, they should be removed from the area, cut into small pieces and allowed to cool before disposal. Failure to follow this recommendation may result in a fire. It is recommended that a fire extinguisher be located in an easily accessible portion of the work area.

Disclaimer

The data presented herein are not intended for use by non-professional applicators, or those persons who do not purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer.

It is the responsibility of the applicator to thoroughly understand all equipment technical information and safe operating procedures that pertain to spray polyurethane foam application.

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