



SUBSTRATE RECOMMENDATIONS:

WELD-ON® 55TM is formulated for bonding a wide variety of thermoplastics, including polycarbonate, cellulose acetate butyrate, PETG, buffed acrylic, ABS, PVC, polyurethane and foam board to themselves and one another.

SUGGESTED BONDING APPLICATIONS AND RECOMMENDATIONS:

WELD-ON 55 is recommended for a variety of applications in the sign assembly industry, especially butyrate trim cap and polycarbonate in channel letter applications. It also has many uses in other plastic fabrication industries for bonding ABS to PETG.

GENERAL DESCRIPTION:

WELD-ON 55 is a slow curing, clear colorless, 2-component, 100% reactive polyurethane adhesive that contains no volatile organic compounds (VOC). When mixed and applied, it polymerizes at room temperature to form high strength bonds within a few hours. The adhesive has excellent resistance to discoloration by UV light and has excellent lap shear and impact strength.

TYPICAL BOND STRENGTH †:

Substrate Material	Aged Bond Strength, lbs/in ² (kg/cm ²)		
	24 Hours*	72 Hours*	1 Week*
ABS	2150 (151)	2300 (162)	2500 (176)
PETG	1600 (113)	2350 (165)	2400 (169)
Polycarbonate	1950 (137)	2650 (186)	2900 (204)

† Substrate Thickness: 0.25 inch (0.64 cm). Bond area: 1.0 in² (6.45 cm²)

Bond strength data was obtained using the compressive shear strength method (ASTM D-2564).

* The time indicated is the interval between bond assembly and the performance of the shear test.

ADHESIVE PROPERTIES AND CHARACTERISTICS:

COLOR:	Clear
VISCOSITY:	4,000 cP
REACTIVITY:	Gel time = 10 minutes, 50 gram mass, 73°F (23°C) Tack free time = 1 hour, 0.05 inch (0.13 cm) film thickness, 73°F (23°C)
WORKING TIME:	5 - 6 minutes
FIXTURE TIME:	1 - 2 hours
TIME TO REACH 80% OF ULTIMATE BOND STRENGTH:	72 hours
SPECIFIC GRAVITY:	1.14 ± 0.04

DIRECTIONS FOR USE:

WELD-ON 55 is packaged in a twin-syringe cartridge that dispenses product in a 1:1 mix ratio. The cartridge must be assembled to the dispensing gun and mixing tip prior to dispensing.

- Before inserting the cartridge in the dispensing gun, open cartridge valve and clean obstructions from cartridge nose and valve opening with a clean probe. Close valve.
- Insert cartridge into dispensing gun. Open valve. Dispense a small amount of adhesive making sure that both components freely flow from the cartridge.
- Attached the mixing tip to the cartridge. Press the dispensing gun to dispense and discard approximately 1 – 2 inches of the product, ensuring that the product mix properly in the mixing tip before use. If the mixing tip is left on the cartridge for a sufficient length of time without additional use, the adhesive may cure in the tip. If this happens, keep the mixing tip on the cartridge. When you are ready to dispense more adhesive, replace the mixing tip on the cartridge with a new one. Be sure to discard 1 – 2 inches of the product before use.

Note: The viscosity of this product will allow it to flow between the polycarbonate letter and the butyrate trim cap in most channel letter applications. The application of a reinforcing bead is recommended.

AVAILABILITY:

This product is available in 50 mL cartridge. For detailed information on mixing tip and dispensing gun, refer to the current Product Catalog and Price List.

SHELF LIFE:

1 year in unopened cartridge. The date code of manufacture is stamped on the bottom of the cartridge. Shelf life is reduced at higher temperatures and enhanced at lower temperatures. To optimize shelf life, refrigerator storage is recommended and/or store in cool dark place between 50° – 80°F (10° – 27°C). Keep away from sources of heat, open flame, sparks, sunlight and moisture.

QUALITY ASSURANCE:

Each component of WELD-ON 55 is carefully evaluated to assure that consistent high quality is maintained. Significant testing and evaluation of application and bonding characteristics are conducted on each batch. A batch identification code is stamped on each cartridge providing traceability of all materials and processes used to manufacture this adhesive.

SHIPPING:

For One Liter and Above

Proper Shipping Name: Not Regulated
Hazard Class: Not Regulated
Identification Number: None
Packing Group: None
Label Required: None

For Less than One Liter

Proper Shipping Name: Consumer Commodity
Hazard Class: ORM-D

SAFETY AND ENVIRONMENTAL PRECAUTIONS:

WELD-ON 55 is a reactive adhesive and is classified as a hazardous material. This product does not emit VOC. In conformance with the Federal Hazardous Substances Labeling Act, the following hazards and precautions need to be recognized and followed.

***DANGER! FLAMMABLE. VAPOR HARMFUL.
MAY BE HARMFUL IF SWALLOWED. MAY IRRITATE SKIN OR EYES.***

Keep out of reach of children. Do not take internally. Keep away from heat, sparks, open flame and other sources of ignition. Keep container closed when not in use. Store away from direct sunlight between 50° – 80°F (10° – 27°C). Use only with adequate ventilation. Avoid breathing vapors. Atmospheric vapor levels should be maintained below established exposure limit values contained in Section II and VIII of the Material Safety Data Sheet. If airborne concentrations exceed those limits, use a NIOSH-approved organic vapor cartridge respirator with full face-piece for single short-term exposure. For emergency and other conditions where short-term exposure guidelines may be exceeded, use an approved positive pressure self-contained breathing apparatus. Do not smoke, eat or drink while working with this product. Avoid contact with skin, eyes and clothing. May cause eye injury. Protective equipment such as gloves, safety goggles and impervious apron should be used. Carefully read Material Safety Data Sheets and follow all precautions. Contents are non-hazardous and not regulated. Do not use this product for other than intended uses.

FIRST AID:

Inhalation: If overcome with vapors, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician.
Eye Contact: Flush with plenty of water for 15 minutes and call a physician.
Skin Contact: Wash skin with plenty of soap and water for at least 15 minutes. If irritation develops, get medical attention.
Ingestion: If swallowed, give 1 or 2 glasses of water or milk. Do not induce vomiting. Contact physician or poison control center immediately.

IMPORTANT NOTE:

This product is intended for use by skilled individuals at their own risk. These suggestions and data are based on information we believe to be reliable. Users should verify by test that this product, as well as these methods, is suited to their application.

WARRANTY:

IPS® Corporation ("IPS Corp.") warrants that all new IPS Corp. products shall be of good quality and free from defects in material and workmanship for the shelf life as indicated on the product. If any IPS Corp. product becomes defective, or fails to conform to our written limited warranty under normal use and storage conditions, then IPS Corp. will, without charge, replace the nonconforming product. However, this limited warranty shall not extend to, nor shall IPS Corp. be responsible for, damages or loss resulting from accident, misuse, negligent use, improper application, or incorporation of IPS Corp. products into other products. In addition, any repackaging of IPS Corp. products also shall void the limited warranty. IPS Corp. shall not be responsible for, nor does this limited warranty extend to, consequential damage, or incidental damage or expense, including without limitation, injury to persons or property or loss of use. Please refer to our standard IPS Corp. Limited Warranty for additional provisions.



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