



# WELD-ON

# WELD-ON 55

CLEAR, TWO COMPONENT, REACTIVE  
HIGH STRENGTH POLYURETHANE ADHESIVE

### SUBSTRATE RECOMMENDATIONS

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

### BONDING RECOMMENDATIONS

WELD-ON 55 is recommended for a variety of applications in the sign assembly industry, especially butyrate trim cap to 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 bonds within a few hours. The adhesive has excellent resistance to discoloration by UV light and has excellent lap shear and impact strength.

### BOND STRENGTH DATA

The following bond strength data were obtained using the compressive shear strength method (ASTM D-2564). The substrate specimens were 0.25 inches (6.35MM) thick with one square inch (645 square mm) bonded area. The time indicated is the interval between bond assembly and the performance of the shear test.

SUBSTRATE MATERIAL	24 Hours	72 Hours	1 Week
ABS	2150 PSI	2300 PSI	2500 PSI
PETG	1600	2350	2400
Polycarbonate	1950	2650	2900

### ADHESIVE PROPERTIES AND CHARACTERISTICS

COLOR:	Clear
VISCOSITY:	4000 cps
REACTIVITY:	Gel Time 10 Minutes, 50 gram mass at 73°F. Tack Free time 1 Hour, .050 inch film thickness, 73°F.
WORKING TIME:	5-6 minutes
FIXTURE TIME:	1-2 hours
80% STRENGTH:	72 hours
SPECIFIC GRAVITY:	.94 ± .040
COVERAGE:	10mil: 3 sq. ft/Cartridge 20mil: 1.5 sq. ft/Cartridge

### PACKAGING AND DIRECTIONS FOR USE

- ∞ WELD-ON 55 is packaged in a twin-syringe cartridge with 50 mil total capacity that dispenses product in a 1:1 mix ratio. The package is designed for use with the MIXPAC 50 dispensing gun. The syringe and gun employ the supplied static mixing nozzle that mixes the product as it travels the length of the mixer from the syringe to the tip of the nozzle. See the mixing instructions included in the adhesive package.
- ∞ Be sure that both adhesive components are flowing freely from the cartridge before attaching the mixing nozzle. When using the mixing nozzle for successive applications, renew the adhesive in the nozzle by extruding and discarding a few inches of the material prior to application to the bonded assembly.
- ∞ If the mixing nozzle is left on the cartridge for a sufficient length of time without additional use, the adhesive may cure in the nozzle. If this happens, keep the mixing nozzle on the cartridge until you are ready to dispense more adhesive at which time you will need to put a fresh mixing nozzle on the cartridge. Be sure to discard the first few inches again.

- ∞ 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.

## STORAGE AND SHELF LIFE

Keep away from sources of heat, open flame, sparks, sunlight and moisture. Do not store in upper levels of non air-conditioned warehouses. Shelf life is one year in unopened pouch under these conditions.

## SHIPPING

DOT Shipping Name: Not Regulated. DOT Hazard Class: Not Regulated. ID#: None. Packing Group: None.  
May be shipped as: Consumer Commodity, ORM-D

## SAFETY PRECAUTIONS

This product is a reactive adhesive and is classified as a hazardous material. In conformance with the Federal Hazardous Substrates Labeling Act, the following hazards and precautions need to be recognized and followed.

**CAUTION! – CONTAINS ISOCYANATE – VAPOR HARMFUL – MAY BE HARMFUL IF SWALLOWED –  
MAY IRRITATE SKIN OR EYES AND CAUSE ALLERGIC SKIN SENSITIZATION.**

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 45°F and 75°F. 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:** In case of inhalation, move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician.

**Eye or Skin Contact:** Flush with plenty of water for 15 minutes. If irritation persists, get medical attention.

**Ingestion:** If swallowed, give 1 or 2 glasses of water or milk. Do not induce vomiting. Contact physician immediately.

## IMPORTANT NOTE

This product is intended for use by skilled individuals at their own risk. Recommendations contained herein are based on information we believe to be reliable. The properties and strength values presented above are typical properties obtained under controlled conditions at the IPS laboratory. They are intended to be used only as a guide for selection for end-use evaluation. The ultimate suitability for any intended application must be verified by the end user under anticipated test conditions. Since specific use, materials and product handling are not controlled by IPS, our warranty is limited to the replacement of defective IPS products.

