

## 1. Product Description

Staron® Methyl Methacrylate Adhesive is a specially formulated 10:1 ratio decorative solid surface adhesive. Staron® adhesive is translucent, U.V. Stable, non yellowing and readily accepts pigments for color matching applications.

It offers excellent adhesion to all types of solid surface products, including densified cast polyester, acrylic, and formulations that include both acrylic and polyester blends. Staron® adhesive has a working time of 10–15 minutes and products seamed with Staron® adhesive may be handled 20 minutes after gel time.

Fabrication of bonded parts (sanding, finishing, routing) may take place within one hour after assembly of parts.

Staron® adhesive has excellent performance in U.V light, impact resistance, wear resistance, scuffing, staining, and in resisting water penetration, including boiling water.

### Features and Benefits

- 100% Reactive
- Translucent
- Color Matchable
- Fast Room Temperature Curing
- U.V. Stable
- Sandable
- Phthalate Free
- Non Yellowing

## 2. CONTENTS

Staron® joint adhesive is a two-component acrylic adhesive designed for discreet and seamless bonding to a Staron® solid surface sheet. It is available in either a cartridge or a tube.

### 1) Cartridge (50ml, 250ml)

The cartridge package contains 1 cartridge and 2 mixer tips. A cartridge dispenser is required for using the cartridge adhesive. Components A and B are separated in the cartridge chambers. The hardening begins when the A and B components are combined through the mixer tip.



< 50ml cartridge >



< 250ml cartridge >

### 2) Tube Package

The tube package contains 1 aluminum tube (component A) and 1 plastic tube (component B). Mix by hand after pouring component A into plastic tube containing component B.



● → Component A, Main material in aluminum tube

● → Component B, Initiator in plastic tube

**3) Ingredients Information**

Chemical name	CAS No.	Wt %
Component A		
Acrylic polymer	9011-14-7	20~40
Methyl Methacrylate	80-62-6	30~60
Alumina Trihydrate	21645-51-2	0~40
Component B		
Benzoyl Peroxide	94-36-0	2~5

**3. Physical Properties****1) Uncured state (before use)**

	Part A Adhesive	Part B Activator
Viscosity (Centipoise) - Brookfield RVF (Spindle 7; 20 rpm)	20,000~22,000	6,000~8,000
Color	Clear	Off-White
Weight (pounds per gallon)	9.1	9.5
Mix Ratio by Volume	10	1
Flash Point	50°F(10°C)	
Mixed Viscosity (Centipoise)	16,000 ~ 20,000	
Open Work Time (Minutes)	10 at 72°F(22°C)	
Assembly Time (Minutes)	15 at 72°F(22°C)	
Fixture Time (Minutes)	25 at 72°F(22°C)	
Solvents that are in product	None	

**2) Cured state (after use)**

	Typical Result
Flexure strength (Butt Joint )	4,000 psi
UV Light Resistance	Very Good
Thermal Resistance	Very Good
Operating Temperature Range	40°F~ 250°F ( 4°C ~ 121°C )

## 4. HANDLING AND STORAGE

- Store in a cool and dark area (10°C - 21°C).
- Keep away from direct sunlight and heat.
- Store the cartridge adhesive in a horizontal position.
- Storing in a Styrofoam™ box or refrigerator may enhance storage efficacy.
- Use products in same order as stored: First product put into storage, should be first product used.
- Before using, warm up product to room temperature.

### NOTICE

High temperature storage may cause leakage and reduce the expiration time.

### SAFETY AND FIRST AID

- Keep out of reach of children.
- Do not use near flame, or flammable materials.
- Use in well ventilated area.
- Avoid contact with eyes, skin, and clothing.
- Ingestion: Wash out mouth with water. Do not induce vomiting. Keep body warm and at rest.
- If breathing stops or shows signs of failing, call 911 and perform CPR. (Do not use mouth-to-mouth)
- Eye Contact: Immediately flush open eye with water for at least 15 minutes. Seek medical attention.
- Skin Contact: Wash skin thoroughly with soap and water. Contaminated clothing should be washed or dry-cleaned before using again.
- Inhalation: Exit exposed area. Keep body warm and at rest. If breathing becomes difficult, administer oxygen. If breathing stops or shows signs of failing, call 911 and perform CPR. (Do not use mouth-to-mouth)

## 5. SHELF LIFE

All Staron® Adhesive should be stored in a cool, dry place when not used for a long period of time. Staron® Adhesive has a various shelf life which is 24months from manufactured date or more when stored at room temperature 72°F(22°C) in their original containers. Shelf life may be extended by refrigeration.

This information is being supplied by the Manufacturer of Staron® Adhesive, and all information is provided to the best of the Manufacturer's knowledge. The Manufacturer makes no representations or warranties of any kind concerning this data or information on this data sheet. Due to conditions outside of the control of the Manufacturer, the Manufacturer does not accept liability for results obtained. Any questions concerning this information or product use should be directed to the manufacturer of Staron® Adhesive.

- Shelf life will be reduced under high temperature storage.
  - Exposure to high temperatures for a long period of time may cause \*BPO decomposition, which causes delays in hardening time or non-hardening issues.
- \* BPO is the ingredient in component B. It is the initiator of hardening chemical reaction.

## 6. USAGE DESCRIPTION

To achieve the best results, follow the Cartridge system (50ml, 250ml) steps below.

- 1) **Warm the cartridge :** If the cartridge is cold, warm to room temperature before use. Low temperatures will increase its viscosity and may cause dispensing or mixing problems.
- 2) **Upright position :** Place the cartridge in upright position for 30 minutes to let the inner vapor to be positioned on the up side of the cartridge.
- 3) **Purge :** After loading to the dispenser, dispense components together without the mixer tip. During purge, hold the cartridge upright.
- 4) **Discharge initial mixture :** After equipping the mixer tip, throw away any extra mixture before applying to project seam. This is a key step to get achieving the proper mixing ratio. If a bubbling occurs, return to vertical position.



Vertical position

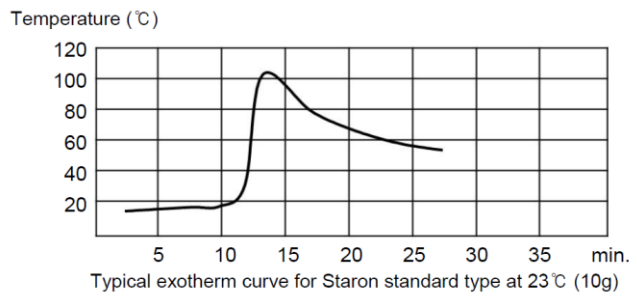


Purge



Discharge initial mixture

- 5) **Applying adhesive:** Apply adhesive to the desired area. Allow 1 hour for curing time. Curing time may vary depending on temperature and humidity exposure. During curing time, temperatures may reach over 100°C. Use caution while handling as the product may remain hot for some time after. Wearing protective gear while handling product is advisable.



- 6) **Re-use and mixer tip replacing:** If the cartridge is unused, replace mixer tip to original cap for storage. If the cartridge dispensing was paused more than 5 minutes, the mixer tip may need to be replaced due to the adhesive hardening in the tip.

### Helpful hints when using Staron® Adhesive to make seams or buildups

Always use mirror cutting techniques to cut the seam. Routed mirror cut seams provide the cleanest seams and often help reduce gaps due to router chatter.

Always dry fit seams. If you can't see the seam when it's dry fitted, you will probably not see the seam once adhesive has been applied. For best bonding strength, use 150 grit (80 or 60 micron) sandpaper to "rough up" the seamed areas. Many fabricators use a block of wood and adhere the 150 grit (80 or 60micron) sandpaper to the block and gently swipe the seamed area roughing up the edges to be seamed. But be careful not to round out the top edges of the seamed areas. It is always best to wipe the seam with denatured alcohol immediately prior to seaming in order to remove dust or oily films left by your hand.

## 7. TROUBLESHOOTING

### 1) Curing Delay

- If the working temperature is too cold, curing reaction will delay. Warming up the work space can help to make curing reaction faster.
- Incorrect mixing ratio may cause delay. Follow usage instructions, then try purging again.
- If the storage temperature was over 21 °C, adhesive may not function properly. (See shelf life information)

### 2) Dispensing Error

- Dispensing may be stiff due to high viscosity or inner pressure.
- If the adhesive was stored in cool temperatures, warm it up to room temperature before use.
- Inner vapor might generate back pressure. If this happens, place cartridge in a vertical position for 30minutes at room temperature and try purging again.

### 3) Visible Seam Line

- Using the Staron® sheet guide, apply matching adhesive color.
- The adhesive color should create an inconspicuous seam when matched properly to the chip and base color of the sheet. Wide seam lines may visible. Be sure that the width of adhesive seam line does not exceed 0.12mm.
- Check the SHEET PREPARATION.

#### STARON® SHEET PREPARATION

For the best seam line application and appearance, remove all dust and contamination from seaming edge by wiping with an alcohol pad prior to application. Rough edges can be smoothed by cutting with sharp saw blade. (Mirror cutting recommended)

*This Technical Bulletin is intended to provide guidelines for optimal fabrication, installation, and performance of LOTTE ADVANCED MATERIALS products mentioned. Though the information contained herein is deemed reliable, none of the contents--including but not limited to the instructions, techniques, graphics, and recommendations--is to be understood as implying legal liability of fitness for a specific purpose, any other type of warranty, or being complete or absolute in its range and nature of information.*

*Depending on the user's particular application, all necessary measures must be taken to verify and test the adequacy for such needs or application. Any information or recommendation herein is strictly for purposes of reference and as such, LOTTE ADVANCED MATERIALS assumes no responsibility for its suitability or accuracy or the use of such information for products other than LOTTE ADVANCED MATERIALS Staron® solid surfaces & Radianz® quartz surfaces.*