Optimisation Rules for the Application of Preciosa Hot-Fix Stones

Thanks to the innovative low-melting adhesive, the Hot-Fix MC Chaton Roses VIVA12, as well as Preciosa's other hot-fix flat-back stones, can be very gently applied onto most textile materials, using all the available heat-setting and ultrasonic devices. The fusible layer of our new low-melting adhesive on the stone's back enables using extremely short application times (from 0,3 sec per stone), thus ensuring maximum smoothness and efficiency of production and simultaneously minimising production costs.

Note:
All application values specified in the instructions are guidelines only. Using these for a particular size of stone, type of textile material and heat-setting or ultrasonic device requires testing on a sample piece of the carrier material used.

General application principles

To achieve the best stone adhesion and to avoid undesirable effects, it is recommended that the following rules are carefully observed:

- All textile materials selected for the application of Preciosa stones must be clean, without chemical finishes, pre-washed and free from mechanical impurities.
- When applying stones of various sizes, begin with the smallest stones and proceed to the largest.
- Avoid moving the stones across the fabric.
- When applying the stones to mixed fabrics, adapt the application values to those specified for materials with a lower heat resistance.
- When applying the stones to fancy fabrics or to various rustic textile materials such as tulle, terry, pile fabric, mesh etc., it is necessary to select a suitable place on the fabric's surface that offers sufficient contact area for the stones.
- When applying the stones to elastic materials (knitted fabrics, fabrics containing polyurethane fibres, e.g. Lycra, nylon stockings etc.), it is advisable to pre-stretch such fabrics slightly on a thin board.
- When applying the stones to finished textile products (T-shirts, jerseys, shirts, etc.), it is necessary to insert a protective impermeable Teflon foil between the front and back of the garment.
- Various application techniques together with a variety of heat-setting and ultrasonic devices used may significantly affect the results. It is, therefore, advisable to test individual setting values first and adapt them to the particular conditions.
- Please, bear in mind that the adhesive must set for at least 24 hours to acquire the ideal joint strength. Until then, if it is necessary to handle the garments affixed with the hot-fix stones, it is strongly recommended to do so with the utmost caution.
- In less absorbent materials, e.g. fabrics made of viscose or silk, lower adhesion values can, quite rarely, occur.

Warning
Hot-Fix stones may not be suitable to apply to leather with a variety of finishes (e.g. cut, dressed, lacquered leather …), artificial leather, suede, or to leather products with a water-repellent finish (silicone-, Teflon-, wax-treated leather). It is not advisable to apply Hot-Fix stones (larger sizes in particular) to carrier materials with rounded surfaces or to materials subject to bending (e.g. boots and shoes).

Using heat-setting devices

- When applying larger stones, it is advisable to use longer application times or to raise the temperature and pressure. On the contrary, smaller stones require a lower temperature and, as the case may be, shorter application times and lower pressure.
- When applying the stones to thicker fabrics (pile fabric, artificial fur, denim, velour, alcantara), it is advisable to increase the pressure, or possibly use longer application times. On the contrary, more delicate fabrics (sheeting, tricot) require just the opposite.
- When applying the stones to very delicate fabrics (dupion, shantung) by means of planar heat-setting devices, consider inserting a protective Teflon sheet between the stones and the heating element (such as an iron).
- Increased pressure in correct combination with application temperatures and times contributes to better results. Excessive pressure, however, may damage the stones or cause an undesirable appearance of the fabric around the stones.
- If the adhesive unduly soaks into the carrier material, consider shortening the application time first, then reducing the set pressure or temperature afterwards.
- Using heat-setting devices with the smallest heating area minimises the possibility of damaging the textile material around the stone.

Using Ultrasonic Devices

- Should the stone separate from the adhesive layer during application, remaining stuck to the device's nozzle, and the adhesive remain on the fabric's surface, it may be necessary to reduce the pressure being applied. Follow the same procedure should the stone become crushed.
- If the adhesive unduly soaks into the fabric, or the fabric gets burnt through or otherwise damaged, first adjust the set application time to a lower value, reduce the pressure or combine both. Achieving optimum results may sometimes take some time.
- Thicker carrier materials (e.g. denim, velour) require increased pressure and, as a rule, a longer application time.
- When applying larger stones, it is advisable to use longer times, or increased pressure. Conversely, smaller stones require shorter times and lower pressure. The correct pressure adjustment may vary between 1 and 6 bars (100kPa – 600kPa / 14,5 PSI – 87,0 PSI).
- When using extremely short application times, a slight change, even by one tenth, may significantly impact the final outcome of your work

For more information, please visit www.preciosa.com or contact us at info@preciosa.com