

Installation Procedure – mirror mount tape / MirrorMax adhesive

SCOPE

This procedure details the recommended application of mirror mount tape and MirrorMax adhesive onto Mirrabak 960 for the purpose of mirror or glass mounting. This is a dual fixing system, whereby mirror mount tape provides the initial pressure sensitive bond, whilst the MirrorMax adhesive cures to provide a secondary long-term fixing.

DISCLAIMER

Adherence to this procedure is mandatory in order to ensure tape and adhesive performance to specifications and the test determined bond strengths, and to maintain glass and mirror safety requirements. Deviation from this procedure is not recommended and Lincoln Group is not liable for any loss or damage to property, whether direct, indirect, incidental, or consequential, resulting from the misuse of this system.

PROCEDURE

1. Ensure that the Mirrabak 960 is bonded securely to the glass surface with no edges peeled back, excessive fraying, or having been altered in any way from its original installation. Ensure that the surface of the Mirrabak 960 is clean, dry, and oil free prior to applying tape and adhesive.

At no time should solvents or chemicals be used to wipe down the Mirrabak film. If the surface experiences moisture or grinding the whole wet perimeter must be thoroughly dried with a clean soft cloth. This must be oil, solvent and chemical free.

2. Apply mirror mount tape along the perimeter of the mirror/glass leaving a 25mm gap at each corner. Tape should be inset 50mm from the edge. Refer Figure 1. Apply uniform pressure and allow the tape to dwell for a minimum of 60 seconds. This pressure in testing was between 9 and 12 PSI. Reasonable pressure with an applicator will ensure a clean bond to the Mirrabak film.

Mass supported by the mirror mount tape component of the system is detailed in Table 1.

Table 1 - mirror mount tape mass support guidelines

Tape width (mm)	Bond strength per linear cm (kg)
12	0.77
24	1.54
38	2.43
48	3.07

3. Apply a 8mm bead of MirrorMax adhesive along side the tape and repeat a minimum of every 300mm; follow the manufacturer's application and safety instructions. Refer Figure 1.

Ensure a minimum of 50mm distance between mirror mount and the adhesive is left at all times to ensure adhesive squeeze out during mirror positioning does not impede contact between the tape and the substrate the mirror is being bonded to.

Mass supported for the MirrorMax adhesive component of the system is detailed in Table 2.

4. Remove the tape liner and install the mirror in place applying uniform pressure over the entire surface. After the 60 second dwell period the mirror/frame is safe to move providing the above steps have been followed. The tape will hold the mirror as the adhesive cures.

Refer to the product data sheet for a detailed description of substrates compatible with MirrorMax adhesive. Always ensure the surface being bonded to is clean, dry, sound and free from any loose or flaking material. Where bonding mirrors to coatings, a pre-adhesion test should be completed, as well as ensuring satisfactory adhesion of the coating to the substrate.

Figure 1 - example shown 1100mm x 1100mm mirror

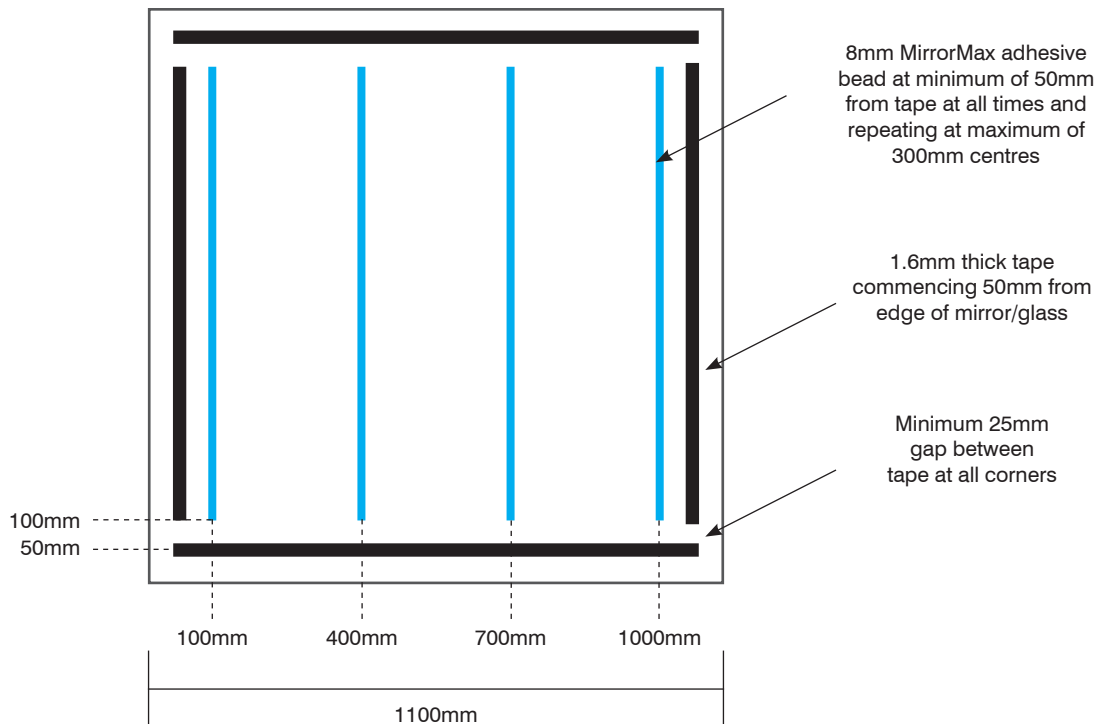


Table 2 - system bond strength - shear*

Days cure (25°C - 50% RH)	System bonded area (m ²) as below**	Equivalent mass supported (kg/m ² bonded)	Safety factor***
3	0.1129	1445	80
7	0.1129	1987	111
Followed by 7 days exposure at 40°C - 80% RH	0.1129	2709	150

* assuming mirror dimensions are 1100mm x 1100mm

** 4 x 8mm width beads per 1.1 linear metre bonded (eg. 8mm width beads at 100mm, 400mm, 700mm, and 1000mm – commencing 50mm from tape at top edge and ending 50mm from tape at bottom edge – ie. 4 beads 900mm in length). Beads flattened out to 1.6mm film thickness of adhesive, (31.4mm adhesive film width) each bead covering 282cm², 4 beads covering 1129cm² or 0.1129m²

*** The safety factor field records for each of the three tests, the number of times system bond strength exceeds the absolute minimum bond strength required (Which is the weight of the mirror per m² – and we assume 18kg/m²) eg for the 3rd and final test – Mass supported KG/m² = 2709kg, divided by the weight of 1m² of mirror (=18kg) gives us a safety factor of 150.

STORAGE AND APPLICATION

Mirror mount tape

The minimum recommended application temperature is 13°C. Rubber adhesives are very sensitive to changes in storage conditions. The tape should be stored out of direct sunlight, and subjected to no greater than 50% relative humidity at a temperature range of 15-25°C. The stock has a shelf life of two years from the date of manufacture when stored in accordance with the manufacturers' storage recommendations.

MirrorMax adhesive

The recommended application temperature range is 5°C-35°C. The adhesive should be stored out of direct sunlight, and subjected to no greater than 50% relative humidity at a temperature below 25°C. MirrorMax adhesive has a 12 month shelf life from the date of manufacture when stored in accordance with manufacturers' storage recommendations.