



Guidelines for OEM Plant Residence Time

Time Between Tape-Attached Part Installation and Outdoor Exposure

Technical Update

February 2007

Background

Customers often request adhesion build curves to determine the minimum time needed between the tape-attached component installation and exposure to the outdoor environment. 90° peel adhesion testing is often used to indicate the adhesion build rate for a given tape on a paint system. Although this testing provides a measure of adhesion and allows for comparison, it is not an accurate predictor of how much time is needed prior to environmental exposure or field performance.

Several factors determine the adhesion strength and the ability of a tape to perform in an application. 3M takes these factors into consideration in designing their tapes. 3M's automotive tapes are designed so that they balance the adhesive and foam attributes to provide a robust attachment solution for automotive components. This includes an immediate adhesion level sufficient to withstand normal handling conditions and an ultimate adhesion level to provide a robust attachment system for the life of a vehicle.

Recommendations

3M does not have a minimum time requirement between part installation and the vehicle leaving the assembly plant.

The following factors are the most significant contributors to successful tape applications:

- Tape land parallel to mating sheet metal
- Tape selection and placement
- Uncontaminated paint and tape
- Properly aligned application roller systems that apply sufficient pressure to achieve complete wet-out (minimum 80%)

The user is responsible for determining whether this 3M product is suitable for use with the substrate and in the particular application conditions intended. Certain substrates may be difficult to bond to and, in some cases, may require the use of an adhesion promoter to ensure adhesion. Please contact your area 3M Automotive sales representative for assistance with any application questions or needs.

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