Garage Doors and High Wind Events

Garage doors are typically in the largest openings associated with building structures. There are several items that should be kept in mind regarding a garage door’s wind load performance in high wind events accounted for in building codes.

1. A garage door is subject to either being blown into the garage or pulled out of the opening. Therefore, backing a vehicle against a garage door is not recommended. Further, this may damage the vehicle. The appropriate protection is provided with a garage door that is wind resistant to local requirements.

2. A garage door should be closed prior to a high wind event. The door should be wind resistant to local requirements. Keeping a garage door open during a hurricane leaves the interior walls, ceilings and roof structure vulnerable to structural damage and possible collapse of the structure.

3. DASMA does not recommend the operation of garage doors, grade level or loading dock, during high wind events. The increased operational force needed to manually open or close the door may cause injury to personnel and/or may damage the door.

4. Adding weight, particularly non-manufacturer-specified reinforcement, to a door can create a dangerous situation that may result in property damage and/or personal injury. Owners should avoid adding reinforcement to a garage door themselves. This will increase the weight of the door and may result in failure or collapse of the supporting tracks or other components that may not be suitable to carry the extra weight. Upgrading garage doors by adding reinforcement must be performed as a package that includes appropriate springs and hardware and supporting track. Contact a trained door systems technician regarding this matter. In addition, please refer to DASMA Technical Data Sheet #153 for guidance concerning vertically reinforcing sectional garage doors.

5. There are some coastal areas that are subject to storm surges where it is more important that the door “break away” from the structure rather than resist wind load. Contact your local building department if the structure in question may be included in this requirement. Refer to DASMA TDS-184 for further information.

6. If you question your garage door’s ability to resist high winds, contact a design professional to evaluate both the door and the surrounding frame of the opening. Keep in mind that the attachment of both the door track and the door jamb to the structure are just as critical as the strength of the door itself. Refer to DASMA TDS-161 for further information.

7. DASMA TDS-183 should be consulted for situations involving component substitution on wind load rated doors.

Note: Technical Data Sheets are information tools only and should not be used as substitutes for instructions from individual manufacturers. Always consult with individual manufacturers for specific recommendations for their products and check the applicable local regulations.

This Technical Data Sheet was prepared by the members of DASMA’s Commercial & Residential Garage Door Division Technical Committee. DASMA is a trade association comprising manufacturers of rolling doors, fire doors, grilles, counter shutters, sheet doors, and related products; upward-acting residential and commercial garage doors; operating devices for garage doors and gates, sensing devices, and electronic remote controls for garage doors and gate operators; as well as companies that manufacture or supply either raw materials or significant components used in the manufacture and installation of the Active Members’ products.

7/31/01 Revised 9/12 This sheet is reviewed periodically and may be updated. Visit www.dasma.com for the latest version.