GSA & ASTM Blast Hazard Levels with ASTM Descriptions

GSA (General Service Administration) Description: This standard is the sole test protocol by which blast resistant windows and related hazard mitigation technology and products shall be evaluated for facilities under the control and responsibility of the US General Service Administration.

ASTM F-1642/F2912 Description: Standard test method for glazing and glazing systems subject to airblast loadings. This test method provides a structured procedure to establish the hazard rating of glazing, glazing systems, and glazing retrofit systems subjected to an airblast loading. Knowing the hazard rating provides the ability to assess risk of personal injury and facility damage.

GSA		ASTM		ASTM F 1642/F 2912 Description
Condition	Hazard Level	Hazard Rating	Hazard Level	
1	None	No Break	H1	The glazing is observed not to fracture and there is not visible damage to the glazing system.
2	None	No Hazard		The glazing is observed to fracture but is fully retained in the facility test frame or glazing system frame and the near surface (the side opposite the airblast loaded side of the specimen is unbroken)
3a	Very Low	Minimal	H2	The glazing is observed to fracture and the total length of tears in the glazing plus the total length of pullout from the edge of the frame is less than 20% of the glazing sight perimeter. Also, there are three or less perforations caused by glazing slivers and no fragment indents.
3b	Low	Very Low	H3	The glazing is observed to fracture and is located within 1 m (40 in.) of the original location. Also, there are three or less perforations caused by glazing slivers and no fragment indents anywhere in the vertical witness panel located 3 m (120 in.) from the interior face of the specimen.
4	Medium	Low	H4	The glazing is observed to fracture, but glazing fragments generally fall between 1 m (40 in.) of the interior face of the specimen and 50 cm (20 in.) or less above the floor of a vertical witness panel located 3 m (120 in.) from the interior face of the specimen.
5	High	High	N/A	Glazing is observed to fracture and there are more than ten perforations in the area of a vertical witness panel located 3 m (120 in.) from the interior face of the specimen and higher than 50 cm (20 in.) above the floor or there are one or more perforations in the same panel area.

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