applied science

Protecting Residents—Worries about security in housing units have led to upgrades in door hardware, cameras and other high-tech equipment. But one lower-tech improvement has met with great success: fire-rated cabinets for fire extinguishers.

The cabinets were first introduced in 1991 in response to concerns by fire marshals, code officials and architects, explains Pat Jaugstetter, president of the Fire Equipment Manufacturers’ Association. The goal was to create products that could be inspected after installation to determine that fire-resistant requirements had been met. Before the cabinets were created, architects had to specify that openings for equipment should be lined with special gypsum board, which often lacked precision and consistency, he says.

The cabinets are certified and listed by Intertek Testing Services or Underwriters Laboratories to conform to one-hour combustible and two-hour noncombustible fire-barrier wall-system building codes. The cabinets are made in accordance with UBC 7-5 (ASTM E814) and UBC 7-1 (ASTM E119) under positive pressure to measure fire-resistant performance.

Even with the benefits they provide, fire-rated cabinets make up only about 25 percent of cabinet sales, but that universe also includes installations where fire-rated products aren’t required. “The growing use of fire-rated barriers in commercial construction calls for a steadily increasing need for fire-rated accessory items to maintain the integrity of the fire barrier,” says Jaugstetter.

The growth is indicated in part by the growing use of fire-rated Type X gypsum wallboard, which has grown from 24.9 percent of wallboard sales in 1992 to 29.7 percent in 2003, with projections of 33.3 percent in 2007 and 36.1 percent in 2012. “It can be expected that fire-rated cabinets will play an even more significant role in future projects,” he says.


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