

Safety Alert 8: Falling of a precast wall panel in stacking rack

Accident sequence

A precast inner leaf (panel which needs to be turned for installation) with a vertical joint pumping groove was stored on top of high wooden blocks so that the top edge of the inner leaf panel could be raised between the pins of the stacking rack.

After a little while the blocks fell over and the panel fell off them. The top edge of the panel fell under the pins of the stacking rack allowing the panel to fall freely against the panel next to it. Both panels were damaged.

The employee who stacked the panels had left from the space between these panels about 20 seconds before. The consequences would have been fatal, if the panel had fallen on him.



Cause of falling

The wooden base blocks 50 x 100 L=200 had been placed longitudinally under the panel at both ends.

The weight of the element rested on the blocks eccentrically due to the groove on the bottom edge.

The blocks became inclined and fell over from under the panel.

The blocks were too narrow with respect to the height of the block stack, and not even the same width as the panel. In addition, they were not placed centrally under the panel.

The photo shows the 50x100 L=200 stacks of wooden blocks which fell over.



Corrective actions

The wooden base block must always be at least the same width as the panel.

The height of the stack of blocks may not exceed the width of the blocks.

The base blocks shall be placed crosswise under the panel.

A piece of the groove mold shall be left in place in the groove on the bottom edge by the support points, not to be removed until the panel is loaded in a vehicle for transport to the worksite.

A second row of pins shall be provided at a height of ca. 1.5 m from the floor to avoid the need for high base blocks.

