INTERNAL FINISHES FOR PROTECTIVE SPACES IN ISRAEL - RESEARCH AND STANDARDIZATION

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The paper reviews full scale explosive tests series, conducted in Israel by the Home Front Command in recent years, on different types of finishes on the internal faces of walls and ceilings in protective spaces, built by law in every residence and public structure in Israel, according to the Home Front Command regulations.

To allow convenient use of the protective spaces as regular rooms during peace time, the Home Front Command has developed several types of internal finishes: wet finishes – gypsum, thermal and cement plasters, and dry finishes – gypsum boards emplaced before or after the concrete casting.

The tests included activation of large explosive charges, inducing blast loadings on the protective spaces elements and internal finishes, as well as activation of air bombs, inducing fragments hitting the protective spaces walls with internal finishes. The tests were conducted for the Home Front Command threat criteria.

The paper includes the lessons learnt on the internal finishes behavior under blast loadings and fragmentation impact, as well as the requirements for the internal finishes in protective spaces as formulated in the Israeli Standards.