

Title Use of IPN (fire-resistant foam) sandwich panels in construction of CA storages
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Abstract

Very basically CA rooms should maintain atmospheric adjustments such as different concentration gases in the air, temperatures, humidity and should resist against resulting high pressures. A total and gas-tight insulation is a prerequisite. Industry's leading insulating material polyurethane and its fire-resistant version isophenic foams, when combined with steel facers with proper joint geometry, are used to manufacture sandwich panels which are used as the wall and ceiling elements of a CA cold storage, ideally supporting the atmospheric requirements stated above. These foams, with their inherent properties such as closed-cell structure, natural bonding to the steel facers and rigidity, are ideal core materials for insulation, compression resistance and fire resistance. Coupled with proper joint geometry and special resin sealants, sandwich panels are the optimal solution for CA storage constructions with the speed and ease of construction they provide.