

Rapidly Deployable Panels (RDP)



The Evolution of Expeditionary Solutions™

The Rapidly Deployable Panel (RDP) is a sandwich construction panel comprised of an internal insulative foam core bonded to a composite skin. It also includes integrated interlocking channels for connectivity. The generic term for this construction is Structural Insulated Panel (SIP), which dictates only the sandwich-style construction, but not the materials, bonding, or construction. The WHS RDP is a military-grade SIP constructed with the highest quality components and cutting edge manufacturing technologies.

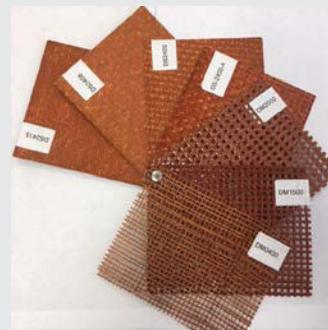


Fabrication/Construction Materials

The RDP is entirely manmade composites. There are no wood or cellulose elements. A variety of modern composite materials are available for the skin and insulative foam core, the selection of which is determined by best fit for the application. The skin and core are permanently bonded with a specialized and highly tested SIP bonding agent, eliminating the risk of delamination. The tongue and groove overlapping connectors and panel end caps are of galvanized steel which ensures the prevention of any rust.

The RDP Exterior Skins

A variety of modern composite materials are available for the skin of the RDP. Most commonly used are a fiberglass impregnated phenolic resin and/ or galvanized steel. Both are fire resistant and non-combustible, waterproof, and rust free. They will not rot, mildew, or mold. The composite floors can be coated with rubberized coatings, hardened coatings and medical grade flooring as options.



The RDP Insulative Core

A variety of modern composite materials are available for the core of the RDP. Most commonly used are EPS and XPS closed cell foam core. Both are waterproof, rust free, and will not absorb water. They will not rot, mildew, or mold. Both cores offer dimensional stability, chemical inertness, and are customizable. The core is not cellulose, therefore is not ingested by insects. An optional core with insecticide is available to prohibit burrowing insects.

Rapidly Deployable Panels (RDP) - Frequently Asked Questions



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What is the Thermal Efficiency of the Panels?

Thermal insulation is, by design, a significant benefit of the RDP. Insulative values up to R-72 are available. Joining methods of the RDP panels ensure a tight fit to virtually eliminate thermal transference or bridging (loss of heat/cooling).

How Much Do Panels Weigh?

RDP are extremely light as compared to wood, brick, and concrete. One 4x8 RDP weighs approximately 40 pounds, which is dramatically more efficient and over 50% lighter than a wall section made from 2x4s and plywood.

Are the Panels Environmentally Resistant?

100% Composite construction of the Rapidly Deployable Panels means they will not rot, mildew, mold, rust, or be ingested by insects. The outer surface of the skin may be painted with anti-microbial paint that is 99% effective in killing MRSA and other microbes within two hours. RDP panels are designed to be used outdoors in environmentally challenging conditions. Phenolic skins remain stable to 428F. Lifespan is 20+ years.

What is the Strength of the Panels?

Rapidly Deployable Panels are far stronger than their weight might indicate. This is due to the nature of the structural insulated panel design, in which the skin and core work in concert to create a rigidity and strength far in excess of either component alone. A single 8" thick 4x8 RDP can hold more than 200 pounds/sft without bending or breaking. Roof loading must be determined at design, since capacity is correlated to RDS thickness.

