

Panels used for light insulated swapbodies.

Insulation core

Hard polyurethane foam, bonded completely to the steel skins using large scaled foaming process. Foam thickness approx. 55-95 kg/m³

Impermeability to vapour

The metal skins provide absolute impermeability to vapour. No loss of insulating capacity or payload due to water absorption.

Corrosion resistance

The zinc-steel cathode effect ensures chemical and physical resistance to corrosion.

Chemical and biological properties

Resistant to the usual chemicals, neutral odour, proof against corrosion and rot, resistant to fungus and microbes, no physiological effects, certified suitable for transporting food.

Tensile strength*

320 N/mm²(StE 320)

Resistance to compression

50 t/m² prior 10% compression

Resistance to penetration

With a spherical diameter of 20 mm, there is no lasting deformation forces up to 300 n.

Thermal expansion

The coefficient of steel is approx. 50% of that of aluminium and approx. 30% of glass-fibre composites (depending on percentage of glass content). Any remaining thermal expansion is completely absorbed by the folded seams, leaving no permanent deformation.

Thermal transmission coefficient

Due to the good conductivity value of foam at $\lambda = 0.022 \text{ w/(m}\cdot\text{k)}$ the k-value is at least 0.62.

Thermal storage capacity

The thermal storage capacity of the steel skins is considerably less than that of glass-fibre composites, meaning that a great deal of power may be saved when cooling interior of the vehicle.

