



## THERMAL PERFORMANCE IN FRIGID, HIGH-ALTITUDE CONDITIONS



CEILING

**Location:** Kitzensteinhorn, Austria  
**Product(s) used:** Tektalan A2-TK-D, BTB concrete screws  
**Building:** Gletscherjet 3 & 4 glacier  
**Clients:** Empl-Bau GmbH, Gletscherbahnen Kaprun AG/Kitzsteinhorn

*“We decided to use the special insulation solution Tektalan A2-TK-D because it is a high-quality product which is especially able to withstand the extreme altitude, exposed location, and construction logistics and is also economically feasible.”*

- Günther Brennsteiner, Technical Officer, Gletscherbahnen Kaprun AG/Kitzsteinhorn.

### Challenge:

In 2014, Gletscherbahnen Kaprun AG broke ground on an ambitious 18-month project to add two new chair/gondola “glacier railways” at the alpine ski area Kitzensteinhorn in Austria. In addition to conquering the many construction challenges inherent to this frigid, storm-prone, high-altitude location, the contractor, Empl-Bau GmbH, needed to employ a fire-resistant insulating material that would prevent heat loss in the top- and mid-station buildings while minimizing condensation and frost on their interior surfaces, even when outside temperatures dropped as low as -20° C.

### Solution:



THERMAL



FIRE SAFE



ACOUSTIC



ECO-FRIENDLY



DURABLE

To meet the special insulation needs of this extreme-condition project, the contractor chose Tektalan A2-TK-D, a non-flammable multi-layer insulating material composed of wood wool and rock mineral wool layers separated by an aluminium-foil vapour barrier. The vapour barrier helps to prevent interior condensation wherever the insulation panels are installed in frigid environments, and the physical characteristics of the panels render them easy to install.

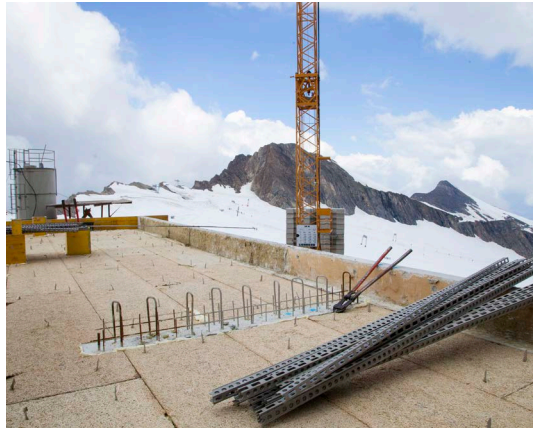
At the top railway station, for example, the panels could be concreted directly into the ceiling formwork, because the special alignment of their rock wool mineral fibres allows them to withstand the high pressures of the concreting process. In other areas, they were applied with BTB concrete screws and then plastered and/or painted, depending on the expected wear-and-tear in the rooms where they were installed.

And in addition to their thermal and anti-condensation properties, the Tektalan A2-TK-D panels gave the contractor peace of mind with regard to fire resistance - due to their Euroclass A2 fire rating.





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