

Case Study airfield repairs

Reconstruction of runways with Plastifloor® in
Siberia at -35°C

Runways, roads, bridges and ramps in permafrost areas need to get repaired to keep business running. The problem for the contractor is to get these jobs done at an extremely low temperature and the projects should be ready for use again in a short time. The solution is the fast-curing Polymer Concrete 050/051F based on MMA resins and low temp. Additive B 101 manufactured by Plasti Chemie Produktionsgesellschaft mbH in Germany. Plastifloor® Polymer Concrete 050/051F is a fast curing 2 k Polymer concrete that will achieve up to 85 N/mm² compressive strength and a bending strength of 22 N/mm² corresponding to the test certificate of material testing institute MFPA, Weimar no.: B12.18.027.02 which is being produced by Plasti-Chemie Produktionsgesellschaft GmbH and supplied worldwide to our specialized contractors.

The pictures show the situation on-site before application of the Plastifloor® mortar system:



Siberia at -35°C

The iced concrete substrate needs to be cleaned, ice and water need to be removed. Proper substrate preparation was necessary with electric hammer and hand grinding some areas to ensure that substrate pores are opened. Adhesive strength needs to be measured.



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After cleaning and drying the prepared substrate will be primed with the fast curing Plastifloor 118 primer together with Additive B101 and hardener 50 W. It will be applied by brushes and rollers and broadcasted with quartz sand 0,6 -1,2 mm.



The Plastifloor MMA resins are curing together with the accelerator B 101 and hardener 50 W even at -35°C within 1 h.



Only 2 hours after starting the job this edge of the broken concrete runway was repaired. After 1 h curing time airplanes can start/landing again.

The advantage of the Plastifloor® floor coating is obvious:

Due to the short curing times between the single layers, reconstruction works can be affected by a specialized company within a very short time slot. Thus, the customer saves precious time and expenses that would result from a loss of production/use. For example, a new concrete slab cannot be used immediately after installation and the problems with joints that are quickly washed out by water/ice will emerge again after a short period of time.

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PLASTI CHEMIE
Produktionsgesellschaft mbH

The result is convincing:

Plastifloor® is a thermoplastic material – elongations of materials on changing temperatures are being coped more easily. Fallen parts are equally easier absorbed by this Polymer Concrete as it is being constructed vibration-absorbing.

Plastifloor® is skid proof and easy to clean. The coatings are also tested according to European Standards and approved by TÜV Germany.

Plastifloor® is the ideal floor coating for reconstruction works. We have more than 25 years of experience. Ask for experienced flooring companies in your area. You can choose from a variety of colours and slip-resistance classes. Tel.: +49 3745/744320-0

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