

Cleaning instructions for ems- isolier[®] panels with organic coatings

Cleaning recommendations from manufacturers of sandwich elements have always been very general in the past, omitting exact details of particular cleaning and disinfecting products. We have now conducted a series of resistance tests with our standard surfaces together with our partner, FINKTEC GmbH (<http://www.finktec.de>). The results achieved in these tests now allow us to recommend certain FINKTEC GmbH cleaning and disinfecting products.

In order to achieve meaningful results, sample panels from the standard ems range (FS 3000 25µm, LMF and FS 4000) were produced and delivered to FINKTEC GmbH. These sample panels were then exposed to the respective cleaning and disinfecting product solutions, with different aggressive chemical substances (e.g. 50% nitric acid) also being compared and visually evaluated following fixed cycles.

The sample plates were exposed individually for 21 days to the solutions, with the solutions being changed according to defined specifications, in part daily. These 21 days approximate the stress of daily cleaning with 15 minutes exposure over approximately 5 years.

The findings are summarised in the following table:

FINKTEC product	ems- isolier [®] cold store panels		
	FS 3000	LMF 150 µ	Colaminat
FT 43 SR	0	+	++
FT 48 SR	+	++	++
Ökoron [®] SR	+	++	++
FINK aluminium cleaner with foam	-	+	++
FINK – nitric acid foam cleaner	-	+	++
Ökoron [®] 11	-	++	++
Ökoron [®] 10	+	++	++
FINK – FC 30	+	++	++
FINK – FC 21	-	+	++
FINK - Steril	0	+	++
FINK – ViroSept [®] IFS	0	++	++

Key: ++ = excellent resistance / + = good resistance / • = conditionally resistant / - = not resistant

The following product recommendations can therefore be made for individual coatings.

FS 3000:

In the case of our popular standard FS 3000 coating, we recommend use of Ökoron[®] SR, an acidic whey-based foam cleaner, and Ökoron[®] 10, an oxidative, acidic disinfection with a hydrogen peroxide basis.

LMF 150µ:

As in the case of FS 3000, this too is an organic coating. The trials have demonstrated that the range of products which can be used increases, due to the greater coating thickness of the material. However, we would like to restrict ourselves to the following selection: The Ökoron[®] SR cleaner can also be used here for acidic cleaning of LMF 150 µ panels. In addition to Ökoron[®] 10 (oxidative, acidic, hydrogen peroxide basis) Ökoron[®] 11 (oxidative, acidic, peracetic acid basis) can also be used for disinfection. In the alkaline range, FINK – FC 30 foam cleaner (mildly alkaline with a disinfecting effect) can be recommended in combination with the FINK – ViroSept[®] IFS disinfection product (neutral disinfection product).

FS 4000:

As a result of its structure with an inorganic PET sealing film, FS 4000 is better protected against corrosion than comparable organic coatings. A large selection of cleaning and disinfecting products can be considered here as a result.

In comparison with LMF 150 μ , the variety of products increases, but we would also like to limit ourselves here to a selection of these.

In addition to the cleaners recommended for use with LMF 150 μ , the following FINK products make the shortlist. For acidic foam cleaning, FINK aluminium cleaner with foam (acidic foam cleaner, phosphorous and nitric acid basis), and FINK - FC 21 (chlor-alkali disinfecting foam cleaner, oxidative) for alkaline disinfecting foam cleaning.

Overview of product recommendations:

FINKTEC product	ems- isolier® cold store panels		
	FS 3000	LMF 150 μ	FS 4000
Ökoron® SR	Conc.: 2.0 - 5.0 % Exposure: 10 - 20 min. Temp.: 40 - 50 °C	Conc.: 2.0 - 5.0 % Exposure: 10 - 20 min. Temp.: 40 - 50 °C	Conc.: 2.0 - 5.0 % Exposure: 10 - 20 min. Temp.: 40 - 50 °C
FINK aluminium cleaner with foam			Conc.: 2.0 - 5.0 % Exposure: 10 - 20 min. Temp.: 40 - 50 °C
Ökoron® 11		Conc.: 0.5 - 1.0 % Exposure: 10 - 20 min. Temp.: 20 °C	Conc.: 0.5 - 1.0 % Exposure: 10 - 20 min. Temp.: 20 °C
Ökoron® 10	Conc.: 0.5 - 1.0 % Exposure: 10 - 20 min. Temp.: 20 °C	Conc.: 0.5 - 1.0 % Exposure: 10 - 20 min. Temp.: 20 °C	Conc.: 0.5 - 1.0 % Exposure: 10 - 20 min. Temp.: 20 °C
FINK - FC 30		Conc.: 2.0 - 5.0 % Exposure: 10 - 20 min. Temp.: 40 - 50 °C	Conc.: 2.0 - 5.0 % Exposure: 10 - 20 min. Temp.: 40 - 50 °C
FINK - FC 21			Conc.: 2.0 - 5.0 % Exposure: 10 - 20 min. Temp.: 40 - 50 °C
FINK - ViroSept® IFS		Conc.: 0.5 - 1.0 % Exposure: 10 - 20 min. Temp.: 20 - 50 °C	Conc.: 0.5 - 1.0 % Exposure: 10 - 20 min. Temp.: 20 - 50 °C

Key: Conc. = recommended concentration for use / Exposure = exposure time / Temp. = temperature

As mentioned at the outset, these instructions only apply under the following conditions:

- It is imperative that hygiene measures be implemented in accordance with DIN 10516, Food hygiene – Cleaning and disinfection.
- The coating should be flawless. In the event of damage to the surface (e.g. caused by scratches or penetration due to incorrect sealing), the cleaning and disinfecting product solution can:
 - directly affect the zinc or steel layer and lead to corrosion there.
 - undermine the coatings / Colaminat and detach these from the carrier material.
- Cleaning and disinfecting products should be used exclusively in compliance with manufacturer specifications. Dosing and application regulations in particular should be adhered to in detail.
- Use of high-pressure cleaners up to max. 40 bar (low pressure technology).
- No mechanical cleaning of surfaces. Where scouring is necessary, extreme care should be exercised.
- Following cleaning and / or disinfection, the panel surfaces should be rinsed with adequate amounts of drinking water to restore neutrality.
- The coating should be given the opportunity to dry completely, including in inaccessible parts.

Professional and careful maintenance and care of coating surfaces realised at practical time intervals is a basic prerequisite and the most effective measure for ensuring long-term value conservation and securing the visual and technical quality of your construction measure.

The technical competence of cleaning firms, painters and varnishers should be exploited in this respect, as these will assume responsibility for and guarantee the professional realisation of the completed work.