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Department Product Mangement
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Lab trial compatibility of paint

Dear Ladies and Gentlemen

in reference to your email dated 31 January 2012 we did investigation of compatibility of diluted and undiluted paint to SP520 / SP525. The issue was requested by Tremco illbruck r.s.o., by Stanislav Jirak.

Reason:

Tremco illbruck (later only Til) started to sell our SP525 to various types of customers including wooden modular buildings producers. One of them is using now our SP525 for interior joints instead of Acrylic sealant with the benefit of non-cracking joint and over paintable. During this month I received 3 similar "complaints" from our sales guys including this customer. The reason is always the same. After the sealed joint is painted over in some joints dark stains appeared or the joint is visible in it's full length. Please, find attached pictures. The sealant is always fully cured (they paint it few weeks after the construction is done) and the joint is covered with few (normally 4 layers) of coating. They normally use acrylic sealant without this problem.

Here is a few additional informations:

- 1. The SP525 sealant is used for sealing between two partition walls or between a partition wall and the lead bearing wooden sandwich wall.
- 2. The company is using instead of plasterboard for partition walls a material from Xella named Farmacell
- 3. Type of Coating: Primalex Plus white this is the most common Czech interior waterbased coating.
- 4. Number of layers: Corners and joints 4 layers using a brush
- 5. As impregnation of the boards they use diluted Primalex Plus with water (recommended by the producer)
- 6. The sealant is painted over few weeks after the joints are sealed = fully cured. (size of joints 4x4mm corners or 5mm linear)
- 7. The tooling of the surface is done by finger with water.
- 8. The stains are not so visible on the white painted walls, but based on the experience of the company on darker coloured walls the problem is accelerated.
- 9. No leaching/stains occurred in 3 weeks after paint application, later sometimes stains appear in the joints and in the surrounding area (ca. 1 cm from each side of the joint)

Can you, please, let me know your opinion what can be the problem that the stains appear? If you need some other information to be able to judge that properly, please, let me know. This is quite serious issue for us as the over paint ability is one of the most important properties of the hybrid technology and also we don't want to lose a good name at the beginning. All above mentioned information is given and confirmed by our product manager in CZ, who visited the building site personally any brought all above info.

This is not a real complaint, but a question in order to find the reason and solution for the future business.

Samples:

Substrate Fermacell 10cm x 10cm Paint Primalex Plus sample 1 Paint Primalex Plus sample 2 SP520 SP525

Application:

Official instructions from company Primalex:

THINNING

First layer = 1 part PRIMALEX Plus White: 0.75 parts of water; Second layer = 1 part PRIMALEX Plus White: 0.5 parts wate

Testing:

- 1. Sealant was applied on the substrate and coated with undiluted paint after 1 hour, 24 hours and 48 hours curing of the sealant. Compatibility was visually evaluated.
- 2. Sealant was applied on the substrate and coated with first and second layer of diluted paint after 1 hour, 24 hours and 48 hours curing of the sealant. Compatibility was visually evaluated.
- 3. Sealant was applied on the substrate and coated with first and second layer of diluted paint after 1 hour, 2 hours, 3 hours, 4 hours, fife hours, six hours, seven hours and 8 hours curing of the sealant. Compatibility was visually evaluated.

Results:

- No incompatibility was evaluated. Stripe form the paint brush are visible. No leaching was evaluated at all these samples. picture 001
- 2. With coating on one hour cured sealant no incompatibility was evaluated.

With coating after twenty-four hours cured sealant incompatibility (breaks, separation in coating surface) was evaluated.

With coating on forty-eight hours cured sealant incompatibility (breaks, separation in coating surface) was evaluated.

No staining/bleeding was evaluated at all these samples. picture 002

3. With coating on one hour cured sealant no incompatibility was evaluated.

With coating on two hour cured sealant no incompatibility was evaluated.

With coating on three hour cured sealant no incompatibility was evaluated.

With coating on four cured sealant incompatibility (breaks, separation in coating surface) was evaluated.

With coating on fife cured sealant incompatibility (breaks, separation in coating surface) was evaluated.

With coating on six cured sealant incompatibility (breaks, separation in coating surface) was evaluated

With coating on seven cured sealant incompatibility (breaks, separation in coating surface) was evaluated.

With coating on eight cured sealant was incompatibility (breaks, separation in coating surface) evaluated.

No staining was evaluated at all these samples. picture 003 till 006

Conclusion:

With these results incompatibilities are evaluated. We will suggest to coat the sealant SP520 and SP525 with paint Primalex Plus as recommended from Primalex between one and three hour after sealing. Leaching from sealant to the paint as described from Tremco illbruck r.s.o. could not be confirmed by this investigation. No leaching/stains were found even after 10 weeks after paint application.

Do not hesitate to contact us for any further requests.

Sincerely yours

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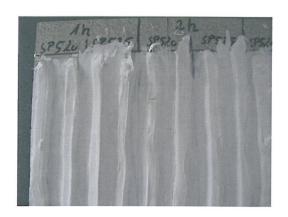
Picture 001



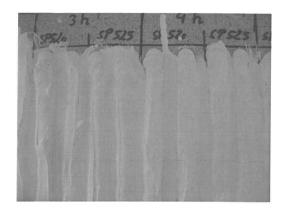
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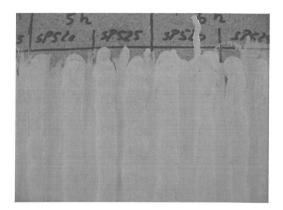
Picture 003



Picture 004



Picture 005



Picture 006

