

Task
Peel test – boil test after AAMA 303-18

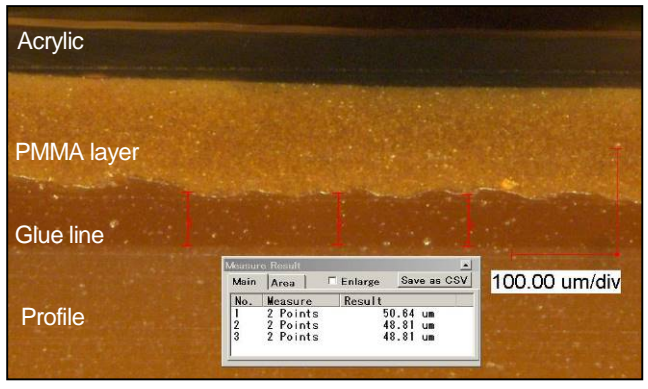
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Test material 1

Date of test 13th of March 2019
 Foil type **RENOLIT EXOFOL FX**
 Decor Golden Oak 9.2178 701 – 116701
 FO-ID 107753158
 Profile material PVC
 Glue Not provided
 Primer Not provided
 Ambient temperature Not provided
 Humidity Not provided
 Profile temperature Not provided
 Profile temperature after heating Not provided
 Temperature of glue Not provided
 Amount of glue Not provided
 Temperature of the foil Not provided
 Laminating speed Not provided



Result		
	Requirement	Result
Peel test value		5,0 (Foil break)
Visual inspection of the glue		OK
Cross – section		
Thickness of glue	40 – 60 µm	48 – 51 µm
General visual inspection	Ok	



Picture 1 – Boil test according to AMMA 303-18 – Comparison (Original – Boiled profile)



Upon inspection, the laminated profile shall be free of

AMMA requirements	Results	
Blisters and degradation	No blisters and degradation visible	
Diminished bond integrity – less than 2 N/mm	Initial Peel value – 4.9 N/mm	Peel value after boil test – 4.6 N/mm
Veneer or film layer separation	No Veneer or film layer separation visible	

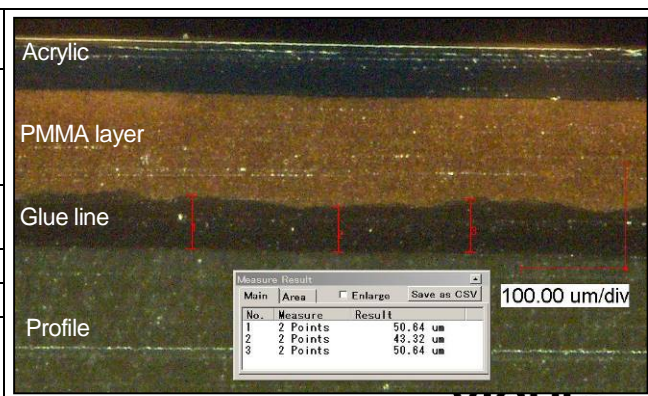
Test material 2

Date of test 13th of March 2019
 Foil type **RENOLIT EXOFOL FX**
 Decor Golden Oak 9.2178 701 – 116701
 FO-ID 107599537
 Profile material PVC
 Glue Not provided
 Primer Not provided
 Ambient temperature Not provided
 Humidity Not provided
 Profile temperature Not provided
 Profile temperature after heating Not provided
 Temperature of glue Not provided
 Amount of glue Not provided
 Temperature of the foil Not provided
 Laminating speed Not provided

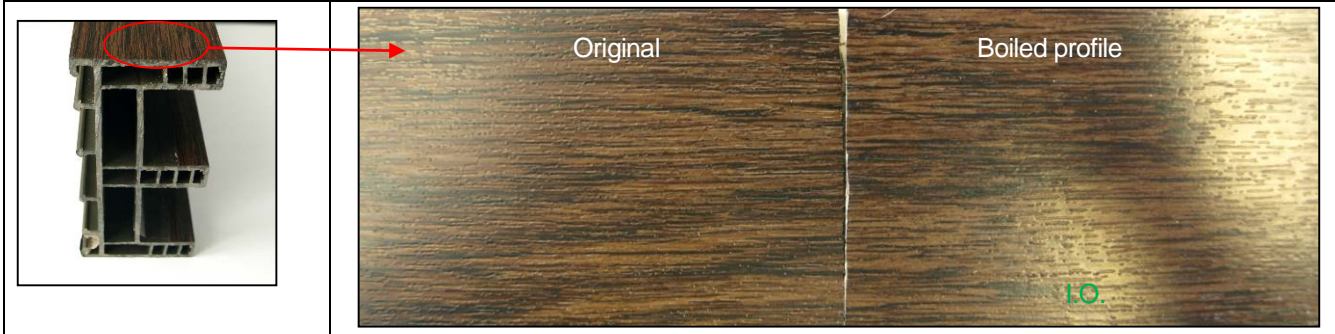


Result

	Requirement	Result
Peel test value		4,9 (Foil break)
Visual inspection of the glue		OK
Cross – section		
Thickness of glue	40 – 60 µm	43 – 51 µm
General visual inspection	Ok	



Picture 1 – Boil test according to AMMA 303-18 – Comparison (Original – Boiled profile)



Upon inspection, the laminated profile shall be free of

AMMA requirements	Results	
Blisters and degradation	No blisters and degradation visible	
Diminished bond integrity – less than 2 N/mm	Initial Peel value – 4.9 N/mm	Peel value after boil test – 4.6 N/mm
Veneer or film layer separation	No Veneer or film layer separation visible	



Rely on it.

Conclusion

The bonding of the film **RENOLIT EXOXOL FX** on the PVC profile shows results in a range between 5.0 and 4.9 N/mm with foil break.

The glue thickness is between 43 and 51 microns. We recommend an adhesive thickness between 40 and 60 microns.

Boil test after the recommendations of AMMA 303-18

The boil test has been done in a glass container filled with 20 cm of distilled water. The AAMA demands a length of 31 cm for the samples to be tested. The delivered samples was about 20 cm. Boiling time was 60 minutes. Inspection of the boiled samples has been done after it cools down to room temperature.

Upon inspection after the AAMA recommendations, the laminated profile shall be free of:

- Veneer or film layer separation
- Blisters and degradation
- Diminished bond integrity – less than 2 N/mm
 - The degradation of bond strength shall not be evident below the minimum standard force of 2 N/mm.

The profiles shown no failure after the boiling test. The peel values after the boiling test was also ok.

The present results of the boil test based on careful carrying out by our staff. All information's and recommendations based on practical experience. These results were obtained in a limited series of experiments under laboratory conditions. Therefore the company Renolit has no influence on the correctness of the results.

Renolit SE cannot assume any warranty or liability regard to possible quality fluctuations regarding to customer substrate and the processing of the substrate, as well as additionally because of to the small size of the test substrates.

Please note, that this carried out boil test can just be an indicate and not a warranty for the passing of the AAMA 303-18.

Best regards,

i. A. Björn Barthel
 Technical Service **RENOLIT EXTERIOR**

The information reflects our current knowledge and is given without warranty of any kind. The services have been provided to the best of our knowledge, yet no responsibility can be assumed for their completeness.



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