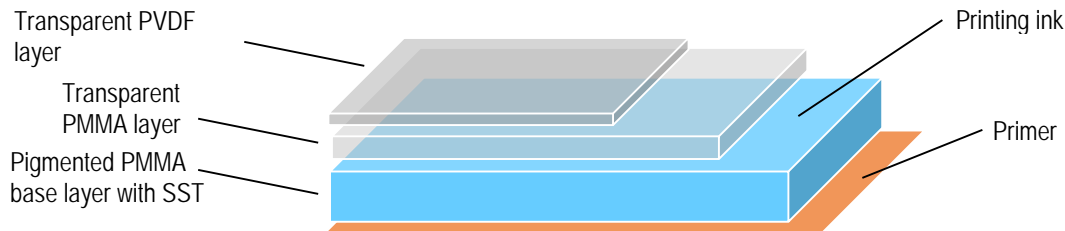




PRODUCT INFORMATION

TYPE OF FOIL	RENOLIT EXOFOL FX
	Embossed multilayer film manufactured in accordance with RAL-GZ 716, for lamination on to substrates for interior and exterior application in vertical assembly of components. Primed on the back of the film. To be used exclusively with PUR Hot-Melt adhesive.
Article Number:	30.30.30 – RENOLIT EXOFOL FX solid colour
	30.30.31 – RENOLIT EXOFOL FX printed
	Emboss structure 808302 Smooth, 809700 Smooth 2, 119501 (Thickness 170µm)
	Emboss structure 116701, 341300 Skito (Thickness 180µm)



Technical Data				
	Standard Test Method	Unit	Values	Tolerances
1. Thickness	DIN EN ISO 2286-3	µm	170/180	+ 20/-15
2. Tensile stress at break	DIN EN ISO 527-3	MPa	15	≥ 15
3. Elongation at break	DIN EN ISO 527-3	%	60	≥ 60
4. Dimensional stability	DIN 53377	%	5	≤ 5
5. Gloss – 116701	DIN EN ISO 2813	Measuring unit	17 – 23	
Gloss – 119501	DIN EN ISO 2813	Measuring unit	13 – 17 (metallic)	
Gloss – 341300	DIN EN ISO 2813	Measuring unit	6 – 10	
Gloss – 808302	DIN EN ISO 2813	Measuring unit	7 – 11 (non-metallic) 10 – 14 (metallic)	
Gloss – 809700	DIN EN ISO 2813	Measuring unit	4 - 8	
6. Scratch resistance	Erichsen test 435	cN	20	≥ 20
7. Abrasion resistance	DIN EN ISO 105-X12		Grade 5	
8. Embossing stability	RENOLIT test method	No change in embossing, colour and gloss		
9. Weather fastness	EN 513 - method 1	Colour change ≥ grey scale 3 after the samples have received 30 GJ / m ² , according to the requirements of RAL-GZ 716		

to 1:	Plunger – 10 mm Ø with flat surface, pressure 50 kPa, measuring over emboss structure
to 2, 3:	Sample width: 15 mm, Measurement in machine direction, Normal climate 23°C (± 1°C), 50 % relative humidity (± 5%)
to 4:	10 Min. / 100°C
to 5:	Surface with 60° measuring head. Exceptions possible for special colours or decors.
to 8:	10 Min. / 80°C
to 9:	Grey scale according to DIN EN 20105 - A02 / ISO 105 - A02

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GENERAL PRODUCT INFORMATION

Processing:	Laminated profiles can be welded using state of the art processing, without affecting the quality of the film. The lamination of RENOLIT EXOFOL FX film must only be carried out with PUR Hot-Melt adhesive.
Stress whitening:	Due to the nature of the PMMA (polymethylmethacrylate) film, stress whitening can occur when forming. Unheated forming of the film, e.g. when pressing sheets at room temperature, is not recommended and will affect the warranty.
Chemical resistance:	Due to the excellent chemical resistance of PVDF (polyvinylidene fluoride), RENOLIT EXOFOL FX films are resistant to most organic acids and bases, aliphatic and aromatic hydrocarbons, alcohols and halogenated solvents. With the exception of fluorine, RENOLIT EXOFOL FX is also resistant to halogens (chlorine, bromine, iodine). Not resistant to high polar organic solvents (e.g. acetone, ethyl acetate, dimethylformamide, dimethylacetamide), fuming sulfuric acid, amines, and basic liquids with pH \geq 12. Compatibility tests are always required. Please take into account that the chemical compatibility is strongly dependent on temperature, exposure time, concentration and state of aggregation of the substance. Please be careful near any cut edges of the film e.g. welded corners, as the film is unprotected in the cross section. Side penetration of chemicals cannot be excluded.
Care Instructions/Maintenance:	Components laminated with RENOLIT EXOFOL FX films can be efficiently cleaned with water and a neutral detergent, soap or washing-up liquid (in non-concentrated form) with a soft sponge or cloth. Further maintenance is not required. Do not use abrasive cleaners or abrasive sponges or cloths. Never work the surface dry or mechanically (e.g. rotating brushes). Contaminations not caused by natural weather conditions should be removed immediately. Aggressive cleaners or cleaners containing unknown solvents should not be used. If water and soap are insufficient, window fabricators/installers can use the RENOLIT EXOFOL Professional Cleaner www.renolit.com/exterior/de/produkte/profireiniger . For persistence dirt and stains, eg. Graffiti, RENOLIT recommend Graffinet® Plexiclean from EAG GmbH, Ringstraße 4, D-30457 Hannover, Germany (www.eag.eu) and BONDERITE S-ST 1302 from Henkel AG & Co. KGaA, Henkelstraße 67, D-40191 Düsseldorf, Germany (www.henkel.de).

For further information, please contact **RENOLIT**.

This technical information sheet represents our latest state of knowledge and shall inform without obligation. The herein stated details do not release the manufacturer using our films from their own inspections and tests, which must correspond with the relevant national guidelines for its intended purpose. It is the duty of the customer to determine if the purchased product is suitable for its intended purpose.

The recipient of this information shall neither forward nor publish the content or parts of it to any third parties without the prior written consent of **RENOLIT**.

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