## Window profile wrapping

- PUR hot melts for exterior applications certified adhesive-primer systems for PVC profiles
- VOC-reduced primers specific products for PVC window profiles





## Adhesives for window profiles meet all requirements



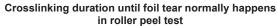
Today, we expect a modern windows or entrance door to last around 25 to 40 years. Within this time, the windows and doors should operate without problems and look good, which means that the laminated foil and the bonding system should not separate from the PVC or aluminium profile, and that no component may disintegrate, even if the exposure stress due to climate conditions is extreme.

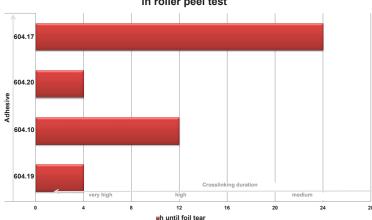
For lamination of window profiles, the PUR hot melt adhesives have proven for decades now to be highly suitable. The improvements of the foils used, the steadily increasing variety of materials and decors, and also the reduced storage time for the profiles after lamination - all of these factors represent more challenges for the

adhesives. This is why today, we need adhesives that adhere to a multitude of different materials with fast crosslinking, which allows downline processing of the laminated profiles in a short time.

Jowat AG is supplying the reactive hot melt 604.19 for a long time, an adhesive with extremely fast crosslinking. The new product **Jowatherm-Reaktant® 604.20** represents a consequent improvement of this system, characterised by an improved adhesion spectrum. In combination with the new Primer **Jowat® 406.82**, this adhesive not only has the advantage of fast crosslinking, allowing for the profiles to remain only a short time in storage until further downline processing steps; the primer is also not subject to hazard classifications. This

is a responsible improvement by Jowat in the interest of sustainability in the protection of our staff and of the environment. Apart from these aspects, the combination primer/ adhesive also leads to convincing superior bonding results, and of course meets the minimum level for peel strength according to the new RAL-GZ 716, set for 3 N/mm. The standard grammages for the adhesive application usually run from 50 to 70 g/m². For the respective machines in use, the profile and the type of foil, and other process parameters, preliminary customer trials have to be run to define which adhesive/ primer system is most suitable and tailored for the respective process.





Jowatherm-Re	aktant®	604.10	604.17	604.19	604.20
Crosslinking speed		fast	medium	very fast	very fast
Adhesion spectrum		medium	very wide	medium	wide
Suitable foils		PVC; PMMA	PVC; (PMMA)	PVC; (PMMA)	PVC; PMMA; Polyester
Ageing		medium	medium	medium	high
Suitable for all standard melters in the market		yes	yes	yes	yes
Density	[g/cm³]	approx. 1.10	approx. 1.12	approx. 1.12	approx. 1.12
Viscosity at 140 °C	[mPas]	approx. 40,000	approx. 42,000	approx. 45,000	approx. 40,000
Processing temp.	[°C]	approx. 130 - 150	approx. 130 - 150	approx. 130 - 150	approx. 120 - 140



## **Primer**

The primer has two major purposes.

- 1. Cleaning of the profile surface by dissolving of usually non-polar foreign matter on the surface, resulting from the PVC formulation or developed during extrusion.
- 2. Improving the physical adhesion on the profile surface by swelling/slight dissolving and/ or by modifying the surface polarity to enhance adhesion.



Jowat <sup>®</sup>	406.72/76	406.82/84	406.89 (MCI) / 78 (MEK)
VOC-reduced primer	yes	yes	no
VOC-share [%]	19 - 29	19 - 29	98
NEP-free	no	yes	yes
Hazard material labelling	yes	no	yes
Application amount / felt [g/m²]	8±2	8 - 16	40 - 70 (15 - 25 MEK)
Application amount / Vakumat [g/m²]	10±2	8 - 16	not suitable
Solution effect on release agent	good	very good	very good
Solution effect on PVC	very good	good	very good
Contains UV tracer	yes (406.76: no)	yes	yes
Drying	by hot air blower against profile direction until a dry slightly tacky, matt, profile	by hot air blower against profile direction until a dry, matt, profile surface is	by IR radiator until a matt, dry surface is reached

reached

surface is reached





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