The World of Bookbinding.

Technical Data Sheet

Planamelt R

Hot melt spine glue, free of plasticizers

Typical Application

- Perfect-binding of catalogues, brochures, telephone directories, magazines etc. on common perfect-binding systems.
  Side-gluing (please observe higher application temperature)
- In two-shot processes as primer or as top coat depending on application temperature.

Plasticizer-free hot melt adhesive for book spines with medium clamping effect and excellent adhesion to the sheet edges also on difficult materials like e.g. papers > 200 g/m².

Due to its special properties, **Planamelt R** can also be used as side glue.

The new polymer basis of **Planamelt R** offers various advantages compared to common EVA hot melt glues:

- improved adhesion to paper edges
- higher oxidation stability, resulting in reduced cleaning effort
- higher oil resistance
- significantly reduced odour
- improved heat and cold resistance
- significantly reduced glue consumption, ca. 20-60% due to lower application weight, depending on sub-strates and machine settings
- reduced process and storage costs by using one adhesive as spine and side glue

Technical Data

Specification Values

Viscosity * (Brookfield, DIN 53019, 170° C)	2,600 – 3,900 mPas
Softening Point (Mettler)	95 - 110 °C

*at date of production

Typical Technical Characteristics

Open time	medium to long
Setting time	medium
Color	colorless to slightly yellowish

Form of Delivery/Container

Granulate in 25 kg bags, further on demand

General Application Instructions

Processing

Suitable for nozzles, rollers and wheels.

Processing temperatures (measured on the rollers):

One shot	150 – 180 °C
Two shot as primer	170 – 180 °C
Two shot as top coat	150 – 160 °C
Side glue	170 – 190 °C
Spinner wheel / doctor blade	ca. 10 – 15°C higher
Inside premelter	ca. 20 °C lower, minimum 140°C

Please be aware that in case the working temperature will be changed all other parameters of the adhesive such as open time, viscosity and adherence will change as well. Long heating - and several preheating phases cause a gradually yellowing of the adhesive and will lead to its uselessness. Therefore it is recommended to adjust the amount of melted adhesive to the daily use.

Recommended machine settings:

Optimum spine treatment is fiber roughing with 0.5 – 0.7 mm depth, otherwise use the following settings:

Notch depth	0.5 – 1.2 mm
Distance of notches	2.0 - 6.0 mm
Smooth coating width	0.2 – 0.7 mm

Dust-free book spine
Contact pressure of the book cover must be increased compared t EVA-based adhesives.

Prior treatment of book spines and the application quantity need to be adapted to the types of paper used. Generally, paper fibres should be exposed as well as possible. For light papers with long fibres a weaker notching is sufficient. For thin papers (e.g. gravure paper) or heavy coated papers fibre roughing proved to be ideal. If a mill with fiber rougher is available, it should be used in addition to normal notching. Film thickness of the adhesive can also be optimized according to the type of paper used. For light and fiber-rich paper 0,2 – 0,3 mm are sufficient, for heavy paper and thick books 0,4 – 0,7 mm should be applied.

IMPORTANT! Planamelt is a new technology which is not comparable to conventional hotmelts. Excellent results can only be achieved if the application system has been cleaned thoroughly (see cleaning instruction on separate information sheet). Further, we recommend consulting our technical support before using Planamelt for the first time, in order to receive further advice on optimum machine settings for best results.

Storage

Max. Processing Period: 18 Months

After delivery of the shipment the product can be consumed during the a.m. period provided that it is stored properly packed in factory sealed containers at a dry site at temperatures from 15 to 25°C. The bags must not be stacked higher than delivered by Planatol GmbH to prevent a locking of the granulate.

Planatol GmbH grants no warranty or guarantee in case the product will be used after the expiration date of the indicated processing period.

Cleaning

Before use of Planamelt R thorough cleaning of the equipment has to be assured (see separate information sheet)

Cleaning

Before use of Planamelt R thorough cleaning of the equipment has to be assured (see separate information sheet)

For Your Attention:

The indicated specification values are valid for the products at the time of delivery ex works Rohrdorf/Herford. In case of doubt Planatol storage samples will be examined as sole reference. Planatol only guarantees the compliance with the specification values as indicated on the data sheet. Furthermore assurances, also orally given, are not guaranteed.

A self-test respectively a test of the adhesive regarding the purpose of application through the client is compulsory, especially testing the production conditions/substrates at the customer's site is obligatory. Recommendations given by Planatol are based on experiences and are without any obligation.

Indications made on this data sheet present no warranty of characteristic in the sense of the current Federal Supreme Court jurisdiction and are therefore not binding. Please always get in touch self-reliant with the responsible Planatol employee to receive the updated version of this data sheet or for further information concerning suitability regarding the FDA, BfR or EU guidelines.

For information regarding product safety please refer to the material safety data sheet.

Conversion from standard spine adhesive to Planamelt R spine adhesive, cleaning of the application equipment

The adhesive Planamelt R has a very good cleaning function which induces an ejection of cracked and dissolved rests of old glue as well as other diverse contaminations of the equipment. Furthermore Planamelt R is incompatible with the usual EVA adhesives due to its new technology, therefore it is absolutely essential to avoid any mixtures of adhesive as these show a very bad gluing performance.

It is very important to carefully perform a pre-cleaning of the equipment, which can look like depicted on the picture.

The cleaning should only be effected once when changing from an EVA adhesive to Planamelt R. The cleaning effort is much less when using the Planamelt R adhesive instead of the EVA adhesive. The cleaning intervals can be reduced substantially as Planamelt R shows characteristics such as oxidation stability and self-cleaning capacities.

Basic-Checklist (it may vary according to equipment):

1. Deplete the premelter and dump the remaining adhesive of the adhesive basin.
2. Separate the hoses of the adhesive basin and fill the adhesive basin and the premelter with the granulate Planamelt R (prior to that close the drain valve), position the temperature to 170-180°C in the premelter, hose and adhesive basin.
3. After melting and reaching temperatures of over 130°C have the roller turn 10 minutes.
4. Dump the adhesive separately out of the adhesive basin via the drain valve and out of the premelter via the hoses. During this process control the condition of the equipment and the dumped melted mass. Scrape off mechanically the rest of the sediments in the adhesive basin and premelter by using a spatula made of plastic or wood to avoid any damage on the equipment.
5. Repeat point 3 and 4 as often as necessary until the machine is sufficiently clean and no mixture of adhesive is left.

Important: Rinse thoroughly with the fresh Planamelt R adhesive at least 2 times to guarantee a sufficient cleaning and to completely purge the old adhesive of the equipment.

6. Dismantle, control and if applicable clean the filters and sieves.
7. Connect hoses with the adhesive basin, effect the suggested machine settings and fill premelter with Planamelt R adhesive.

Claims, which can be traced back to an insufficient cleaning process of the system, will not be accepted.

Date of issue: 05/2017

Schmedt GmbH & Co. KG • Dwengerkamp 1 • D - 21035 Hamburg • www.schmedt.de

Telefon: 040/ 734 744-0 • Telefax: 040/ 734 744-0 • E-Mail: info@schmedt.de