

TECHNOMELT® PA 649 BLACK™

November 2013

PRODUCT DESCRIPTION

TECHNOMELT[®] PA 649 BLACK[™] provides the following product characteristics:

Technology	Polyamide
Product Type	Hotmelt
Cure	Physical setting
Condition	thermoplastic
Components	One-component
Application	Molding
Color	Black

Application Areas

TECHNOMELT[®] PA 649 BLACK™ is a moldable polyamide adhesive exhibiting a good balance of heat resistance, low temperature flexibility and setting time

TECHNICAL DATA

Density, g/cm³ ISO 1183-1, 20°C	1.0
Softening point, °C ASTM E28 (in glycerine)	170 to 180
Melting Viscosity at 190 °C, mPas	4,000 to 5,500
Melting Viscosity at 200 °C, mPas ASTM D 3236 (RVT, spindle 27)	3,500
Shore A hardness ISO 868/15s	88
Yield Strength, N/mm² ISO 527 Specimen no.5 Cross-head-speed: 50mm/min	4
Break Strength, N/mm² ISO 527 Specimen no.5 Cross-head-speed: 50mm/min	3.4
Elongation, % ISO 527, Specimen no.5 Cross-head-speed: 50mm/min	250
Low temperature flexibility, °C ASTM D 3111	-40
Glass Transition, °C DSC, 2. Run	-40

DIRECTIONS FOR USE

Preliminary Statement:

Prior to use it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

Preparation:

The surfaces of the substrate must be dry and free from oil, grease and dust.

Application:

Application Temperature : 185 to 210 °C Application System : Hotmelt application systems

When bonding to a substrate with high thermal conductivity the use of a specific application temperature is required for good wetting. Do not heat the product above the specified application temperature range.

When the product is not in use do not apply heat, this will degrade the quality of the product and in extreme cases cause carbonisation. The standby temperature for the product is 130°C, but not longer than 72 hours.

TECHNOMELT[®] PA 649 BLACK™ may absorb moisture from the air. This will not be apparent in the solid form, but may cause bubbles on heating and could affect the bond quality. It is important, therefore, that containers are kept closed and sealed when not in use.

Cleaning:

Carbonised and set (non thermoplastic) material must be removed mechanically. Removal of the thermoplastic material from the hot apparatus can be achieved by flushing with Technomelt[®] 2333B (see separate technical information).

Classification:

Please refer to the corresponding Material Safety Data Sheets for details on:
Hazardous Information
Transport Regulations
Safety Regulations

Storage:

When properly stored in a cool, dry location, with the container tightly closed when not in use, this product will have a shelf life of at least 24 months.

ADDITIONAL INFORMATION

Disclaimer

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing



application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits. The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. [®] denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 0.0

Henkel AG & Co. KGaA 40191 Düsseldorf, Germany Phone: +49-211-797-0 Henkel Corporation Rocky Hill, CT 06067, USA Phone: +1-860-571-5100 Henkel (China) Co.Ltd. 201203 Shanghai, China Phone: +86-21-2891-8000