3MS.023
Thermally Conductive Adhesives

COTRONICS CORP
High Temperature Specialty Materials Since 1971

Summary

Physical variables included in this documentation are provided by way of indication only and do not, under any circumstances, constitute a contractual undertaking. Please contact our technical service if you require any additional information.

Final Advanced Materials Sàrl
4 avenue de Strasbourg
68350 Didenheim – France
Tel : +33 (0) 3 67 78 78 78

Final Advanced Materials GmbH
Basler Strasse 115
79115 Freiburg – Deutschland
Tel: + 49 (0) 761 47 87 336

www.final-materials.com

Overview

The combination of Cotronics adhesives and filled hardeners makes it possible to obtain the thermal conductivity required for certain applications.

General properties

- Thermal conductors
- Excellent resistance to chemicals and solvents

General applications

- Bonding to glass, ceramics, metals and plastics
- Electronic components
- Fixing transistors, radiators and coolants
- Photovoltaic components
- Ceramic mounting bases

Safety

The legal information and safety guidelines are provided in the safety data sheets available to you.

Avoid contact with the skin. Wear gloves at all times.

In case of contact with the skin:
NEVER clean adhesive on the skin with an organic solvent.
Any contact with adhesive or organic solvent can cause irritation to the skin.

Use soap and water to clean the skin, or, failing that, special hand wash pastes.

info@final-materials.com

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TECHNICAL DATA SHEET

Rev. N° 0 - 12.11.2021

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Duralco™ 128 – Ceramic filler

Properties

- Filler: ceramic
- Peak temperature: 260 °C
- High dielectric strength

Implementation

- Curing: 24 hours at room temperature
- Post-curing: 1 hour at 120 °C followed by 1 hour at 175 °C

Duralco™ 132 – Optimal thermal exchanger

Properties

- Filler: aluminium
- Peak temperature: 260 °C
- Excellent thermal exchanger

Implementation

- Curing: 24 hours at room temperature
- Post-curing: 4 hours at 120 °C

Duralco™ 133 – Ultra high temperature

Properties

- Filler: aluminium
- Peak temperature: 315 °C with post-curing

Implementation

- Fast curing: 4 hours to 120 °C
- Post-curing: 4 hours at 175 °C

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Duralco™ 134 – Ceramic filled grease

This product is not a bonding product but a non-hardening grease. There is no curing: the product does not harden.

Properties

- Filler: ceramic
- Peak temperature: 260 °C
- Thermally conductive grease
- Non-hardening
- Electrically insulating

Implementation

- Application in layers between components and heat sinks
- Easy replacement thanks to its texture
- No curing

Duralco™ 135 -Aluminium filled grease

Properties

- Similar to Duralco™ 134 but with better thermal transfer
- Filler: fine aluminium powder
- Peak temperature: 260 °C

Implementation

- Application in layers between components and heat sinks
- Easy replacement thanks to its texture
- No curing

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Technical Data

Property	Unit	128	132	133	134	135
Peak Temperature	°C	260	260	315	260	260
Colour		amber	silver	silver	amber	grey
Components		2	2	2	1	1
Viscosity	cps	79,000	15,000	36,500	grease	grease
Filler		ceramic	aluminium	aluminium	ceramic	aluminium
Thermal Conductivity	$W.m^{-1}.K^{-1}$	2.88	5.76	5.76	5.04	5.76
Resistivity	Ω.m	10^{17}	10^{8}	10^{8}	10^{18}	-
Cure at Room Temperature		24 hrs	24 hrs	-	-	-
Fast Cure		-	-	4 hrs at 120 °C	-	-
Post Cure		1 h at 120 °C + 1 h at 175 °C	4 hrs at 120 °C	4 hrs at 175 °C	-	-

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