

MCT 61075 - A Very High Temperature Electrically Conductive Adhesive

for

Down-hole geothermal instrumentation that requires operation over a large temperature range and requires a material with a T_g of $>330^\circ\text{C}$ for hybrid or printed-circuit (PC) board electronics.

MicroCoats conductive and non-conductive Polyimide adhesives meet this challenge.

MCT 61075 is an electrically conductive adhesive designed for high-temperature applications.

Application methods: screen printing, dipping, and syringe dispensing.

Suitable for extreme conditions found near a furnace, heater, and for aerospace and down-hole applications.

Features high continuous operation temperature and very high glass transition temperature of $>330^{\circ}\text{C}$.

Temperature Demands in MWD Systems, Sensors, and electronics in measurement-while-drilling (MWD) equipment are crucial.

Examples: gamma-ray and neutron sensors, orientation modules, pressure sensors, signal conditioning, and computational electronics.

As drilling depths increase, more rigorous temperature demands are made on electronic components.

Current MWD sensor systems are limited by the temperature rating of their electronics (typical upper-end temperature rating of 175°C).

Challenges with Current Sensor Systems

Electronics at high temperatures have a short lifetime (600-1500 hrs).

Limitations due to temperature performance and reliability of materials in electronic components and associated packages and interconnect methods.

Advantages of MCT 61075

Unique high continuous operation temperature and very high glass transition temperature.

Excellent adhesion to a wide range of substrates: Kapton, Mylar, ITO sputtered surfaces, glass, Al₂O₃, Gold, and more.

No additional treatment required via acid or plasma etch.

Resistant to flexing and creasing.

Suitable for very fine lines and spaces.

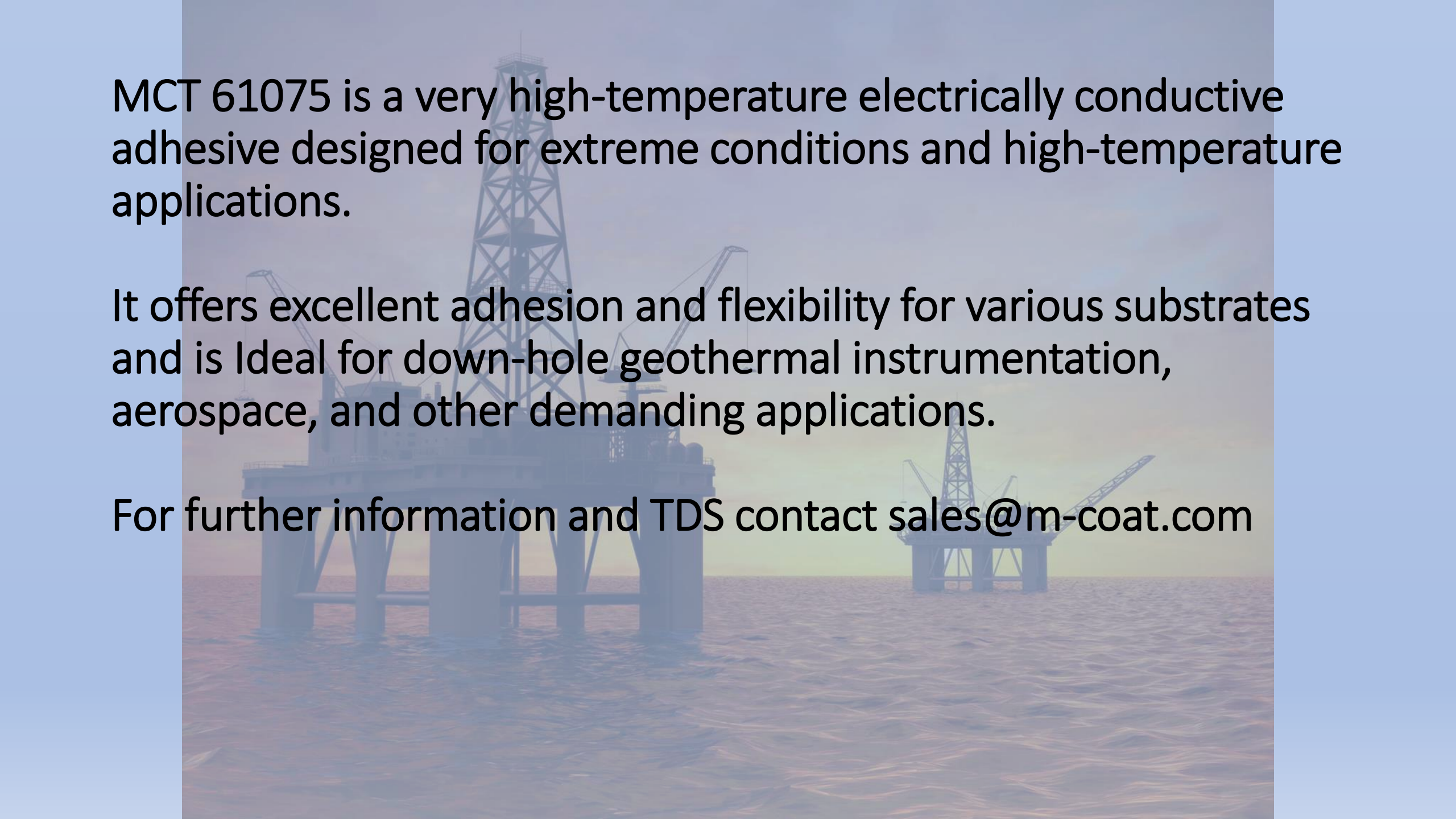
Applications of MCT 61075

Die Attach

EMI/RFI shielding of polyimide flexible circuits.

Polymer thick film circuitry.

Membrane switches.

The background of the slide is a faded, blue-tinted image of an offshore oil rig. The rig is a complex structure with a tall derrick and various platforms, situated in the middle of a vast ocean. The sky is a pale, hazy blue, suggesting a clear day. The overall aesthetic is industrial and professional.

MCT 61075 is a very high-temperature electrically conductive adhesive designed for extreme conditions and high-temperature applications.

It offers excellent adhesion and flexibility for various substrates and is Ideal for down-hole geothermal instrumentation, aerospace, and other demanding applications.

For further information and TDS contact sales@m-coat.com