

FORTII®

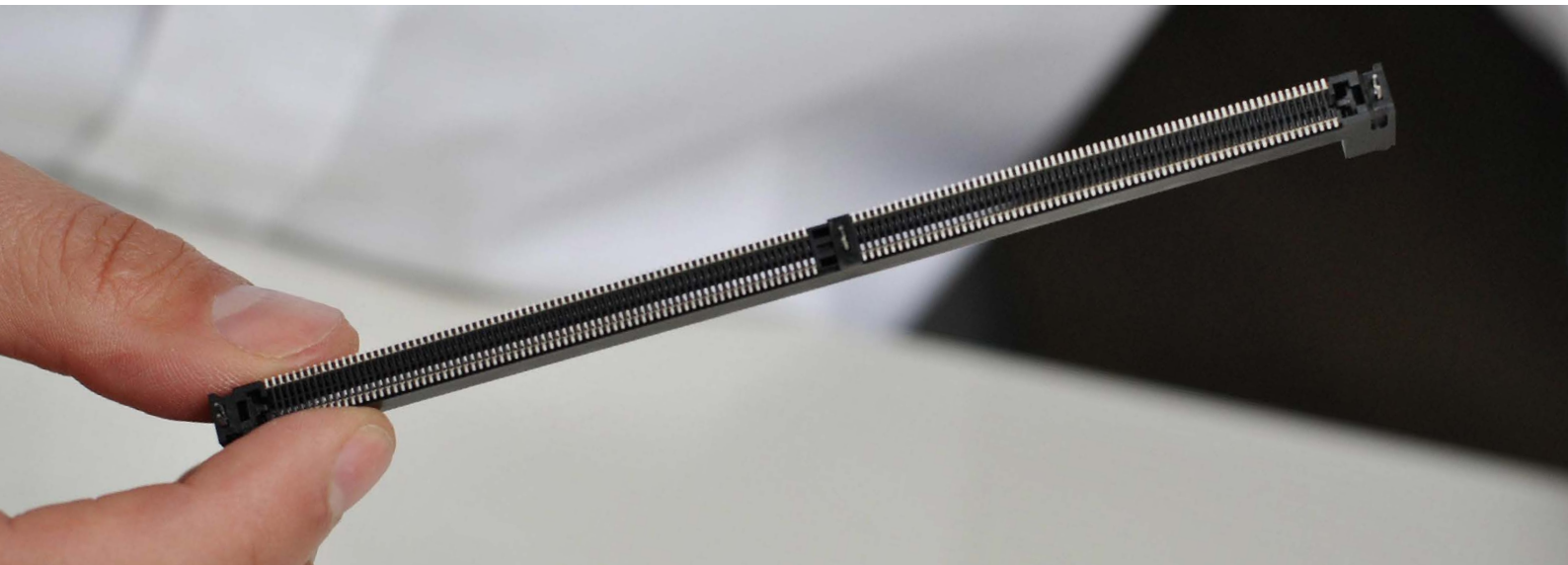
PA4T/PPA FOR TOUGH, RIGID AND DEPENDABLE CONNECTORS

As the thinnovation trend continues to drive smartphone design, phones are becoming thinner each year. Thinner devices, a focus on reducing electronic waste, and the capability to handle higher wattages and data transmission rates have caused manufacturers to rethink the connectors they use. These requirements place more stress on the materials used in these applications, causing an industry-wide need for solutions with the ideal combination of properties: tough, rigid, halogen free, flame retardant, electrically insulative, and with high flow to manufacture thin-walled components.

For DDR connectors used for computer/server DIMM memory modules, power connectors, and connectors used in automotive electrical systems, materials need to combine high stiffness with high heat deflection temperatures to prevent warpage and wall collapse during reflow soldering or other intensive secondary operations. The pins for these types of connectors are close together, so the material needs to demonstrate high flow to enable smaller pitch designs while exhibiting a high Comparative Tracking Index (CTI) and flame retardancy rating of V-0 down to as thin as 0.2mm to ensure safety.

ForTii® is a durable, high-strength material for DDR connectors, power connectors, and connectors in automotive electrical systems due to its combination of material properties and high flow processing capabilities.

- High stiffness, toughness and weld line strength
- High wear resistance through more than 10,000 insertion/removal cycles in durability testing
- Best-in-class PPA to withstand high-temperature physical vapor deposition surface finishing
- Meets UL94 V-0 flammability rating at 0.2mm
- CTI of 600V to ensure electrical safety – particularly important for applications requiring high power
- High strength provides increased pin retention force for reliable connections
- High colorability for design flexibility



FORTII DEMONSTRATES:

- › REFLOW SOLDERING CAPABLE IN A WIDE RANGE OF COLORS
- › HIGH WEAR RESISTANCE THROUGH 10,000 INSERTION/REMOVAL CYCLES
- › UL94 V-0 FLAMMABILITY RATING AT 0.2MM
- › ELECTRICAL SAFETY WITH CTI OF 600V
- › HIGH STIFFNESS, TOUGHNESS AND WELD LINE STRENGTH



FORTII®

PA4T/PPA FOR TOUGH, RIGID AND DEPENDABLE CONNECTORS



BEST-IN-CLASS MECHANICAL PROPERTIES

High melting point of 325°C with 2% tensile elongation



ELECTRICAL SAFETY

Improved electrical safety for tightly spaced pins with a UL94 V-0 flammability rating at 0.2mm and a CTI of 600V



FREE FROM HAZARDOUS MATERIALS

No halogens or red phosphorous, with a lower carbon footprint than liquid crystal polymer (LCP)



HIGH FLOW AND WELD LINE STRENGTH

Provides freedom to design more compact connector assemblies with an increase in pin retention force

DSM ENGINEERING PLASTICS

In close partnership with our customers, we develop innovative high performance engineering plastic solutions for a smarter world.

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www.dsm.com/plastics

or contact us directly via
www.dsm.com/contactdep

DSM – Bright Science. Brighter Living.™

Royal DSM is a global science-based company active in health, nutrition and materials. By connecting its unique competences in life sciences and materials sciences DSM is driving economic prosperity, environmental progress and social advances to create sustainable value for all stakeholders simultaneously. DSM delivers innovative solutions that nourish, protect and improve performance in global markets such as food and dietary supplements, personal care, feed, medical devices, automotive, paints, electrical and electronics, life protection, alternative energy and bio-based materials. DSM and its associated companies deliver annual net sales of about €10 billion with approximately 25,000 employees. The company is listed on Euronext Amsterdam. More information can be found at or www.dsm.com. ©DSM 2019

