

# LNP™ COMPOUNDS – ELECTRICALLY CONDUCTIVE SOLUTIONS FOR THE HEALTHCARE INDUSTRY

In the Healthcare Industry over the last decades there has been a continued search for material solutions, that are addressing the macro trends in this industry of more regulatory oversight, cleaner and safer devices, non threatening, reduced patient anxiety operations, efficient, more personalized medical devices, that are portable, small and lightweight and last but not least, also more environmentally sustainable solutions

#### PLASTICS IN MEDICAL DEVICES

When operating with standard (non electrically conductive) plastics in medical devices there are 2 main challenges to be addressed . 1) In drug delivery applications, the issue of inconsistent dosing and dust , particle attraction & contamination can occur due to electro staticity effects and 2) Malfunctioning of critical supporting electronic devices, due to electromagnetic interference

#### SURFACE RESISTIVITY



#### **ELECTRICALLY CONDUCTIVE COMPOUNDS**

The addition of a conductive filler to a thermoplastic material may increase the electrical conductivity and/or the EMI shielding capability of a thermoplastic, herewith aimed to reduce the aforementioned risks. Traditional fillers like carbon powder, fibers, anti-stat agents and stainless steel fibers are effective, and more novel and advanced technologies may provide additional features.. The resulting conductive compounds may exhibit a better carbon footprint versus plastics with a conductive paint and metals.

### CONDUCTIVE GRADES FOR THE HEALTHCARE INDUSTRY

Grade	Description	Anticipated Features	Possible Applications
A3000TXB	Anti-Static ABS	Dimensional stability, transparency and biocomp assessed (ISO10993 certified)	Inhalers, pill sorter covers
CX01039	PS- electrically conductive modified	Highly dimensionally stable, clean, high flow	Blood analysis unit bottles
DS0036I	PC- Stainless Steel , FR and impact modified	EMI Shielding, non Hal FR, high flow, lower costs and LCA improved versus copper over sprayed plastics and metal	Transcranial Doppler device, electrocardiogram readers housings
MD000EXJ	PP – Carbon Powder	Easy Flow, Food Contact Compliant, High conductivity	Pipets

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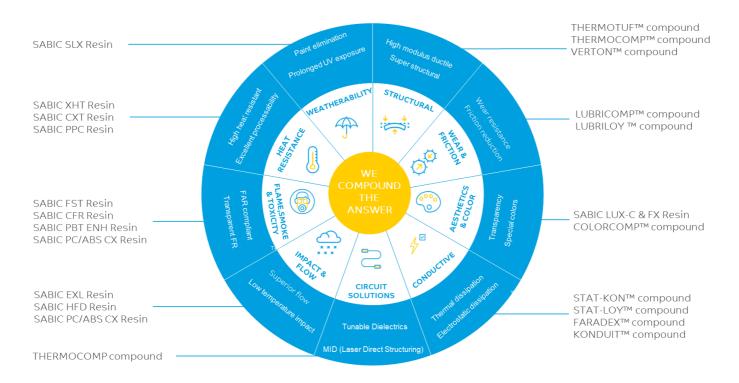
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#### LNP SABIC'S HEALTHCARE POLICY

As a means to support the Healthcare Industry in mitigating risks, SABIC's LNP business has developed a HC Policy:

- Easily identifiable "healthcare product" nomenclature
- Biocompatibility assessed (according to ISO10993 or USP Class VI)
- Food contact compliance for most healthcare products
- FDA Drug Master File and/or device master file listing (letter of authorization provided as needed)
- SABIC healthcare products are subject to formula lock and stringent management of change process
- SABIC healthcare products are being manufactured under GMP rules (No.2023/2006 (Commission Regulation EC, 22 December 2006) or FDA21CFR174.5).
- Long-term supply options available

## LNP™ COMPOUNDS & LEXAN™ COPOLYMERS SOLUTIONS



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