

New dye from LANXESS increases safety under the hood

- **Range of dyes now includes signal color for the plastics industry**
- **New, bright RAL 2003 orange for high-voltage components in electric vehicles**
- **Live components can now be permanently colored with heat-stable Macrolex Orange HT**

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Cologne, November 19, 2021 – Specialty chemicals company LANXESS has developed a new colorant that can be used to permanently color polyamides (PA) and other plastics with the RAL 2003 shade of orange. The soluble organic dye Macrolex Orange HT is highly heat-stable, light fast and weather resistant and offers outstanding color strength and brilliance.

Unlike most conventional dyes, Macrolex Orange HT is perfect for not only PA but also other common plastic types such as polycarbonate (PC) or polyphenylene sulfide (PPS), which, due to their high processing temperatures, normally pose a challenge for colorants. The new halogen-free colorant offers consistently high quality and high-precision coloration ($dE \leq 0.7$), which is particularly important for orange shades. A color difference of $dE < 1$ cannot usually be perceived by the human eye. In addition, the new “high-voltage orange” from LANXESS is cost-efficient thanks to its high color strength.

“We have already extensively tested our new products under realistic conditions. In cooperation with LANXESS’s High Performance Materials business unit, we colored compounds with Macrolex Orange HT at the plastics technical center in Dormagen and tested them for their suitability in plastics processing,” says Dr. Lars May, head of Application Technology Plastics in the Polymer Additives business unit at LANXESS.

In addition to high-voltage applications, Macrolex Orange HT can also be used to color other high-quality plastic products such as housings for tools and other electronic devices as well as technical plastics for vehicle parts and structural applications.

Signal color warns of potential danger

Vehicles with electric drives are naturally exposed to higher voltages and currents than combustion engines. Voltages of up to 400 V DC in the battery circuit and up to 1000 V AC in the engine circuit are possible, with AC voltages exceeding 42 V and DC voltages exceeding 60 V already considered potentially life-threatening.

This is why the live components of an electric drive are colored bright orange so that they can be quickly and easily identified. As a result, the new Macrolex Orange HT product helps to reduce the risk of accidents during the handling of electric motors.

Dyes, pigments and pigment preparations for a wide range of applications

The dyes in LANXESS's Macrolex range allow a diverse range of potential applications and offer excellent compatibility with a large number of polymer types and manufacturing processes. They also meet numerous legal requirements for use in food packaging or children's toys.

The range of colorants offered by the Polymer Additives business unit comprises around 150 products and, in addition to Macrolex-brand colorants, a range of pigments and pigment preparations for use in a wide range of demanding applications. Detailed information is available at <https://lanxess.com/en/Products-and-Solutions/Industries/Colorants/Macrolex>.

LANXESS is a leading specialty chemicals company with sales of EUR 6.1 billion in 2020. The company currently has about 14,900 employees in 33 countries. The core business of LANXESS is

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the development, manufacturing and marketing of chemical intermediates, additives, specialty chemicals and plastics. LANXESS is listed in the leading sustainability indices Dow Jones Sustainability Index (DJSI World and Europe) and FTSE4Good.

Forward-Looking Statements

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Information for editors:

All LANXESS news releases and their accompanying photos can be found at <http://press.lanxess.com>. Recent photos of the Board of Management and other LANXESS image material are available at <http://photos.lanxess.com>.

You can find further information concerning LANXESS chemistry in our WebMagazine at <http://webmagazine.lanxess.com>.

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