



„Our ovens needed the most precise and safest meat thermometers. That’s when I called Elektrosil.“

A precise meat thermometer provides the information necessary to guarantee the perfect roast. Elektrosil developed an innovative add-on for efficient temperature measurement for a premium oven series.

### THE CHALLENGE

An exact roast thermometer – as a reliable data supplier for 62 baking programmes – that’s what the customer wanted from Elektrosil. The measuring rod had to be heat-resistant up to 250 °C, suitable for food and microwaveable. With above-average temperature accuracy based on three measuring points, the thermometer impressively illustrates the customer’s leading technology in first-rate household appliances.

### THE SOLUTION

Elektrosil built a new thermometer: A complete solution that consisted of a skewer, cable, and a plug solution for the connection to the oven. Engineers designed a heat- and steam-resistant composite made from silicone for the cable coating, while the stereo plug was coated in a high-quality, emissions-free plastic. They combined the two components of different material types into a single unit. The plug was sealed with a silicone coating against potential water ingress.

Thanks to the adept choice of materials, the Elektrosil team optimised the thermometer for demanding use: Heat-resistant up to 250 °C and usable with according to standards of the German Federal Institute for Risk

Assessment (BfR) and the US FDA. Even accidentally leaving it in the oven during pyrolysis mode would lead to its decomposition without causing any harm.

Microwave safety was achieved by shielding the measuring rod from electrical discharges of up to 25 amperes. Numerous individual test runs assessed the meat thermometer’s resilience and safety.

### OUR STRENGTHS

- Great expertise in connection technology
- First-class manufacturer network
- Technical expertise and high flexibility
- One-stop shop: From consulting to development and simulation to manufacturing and delivery

**Are you also looking for a custom-fit solution for your system and a competent partner? Then give us a call: +49 40 840001-0.**

**E** elektrosil



### Project information

- Client: A leading manufacturer of home appliances
- Project size: 350,000 units per year, duration > 10 years
- Sector: Home Appliances
- Product area: Connection Technology
- Services: Cable assembly, material consulting, complete production, testing for heat resistance and electromagnetic shielding

### Elektrosil’s services

- Application consultation, development assistance, design-in support
- Quality assurance
- Engineering and production
- Completely customised applications

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