Kisling offers a wide range of adhesive technologies for magnet bonding, securing & sealing of housings as well as encapsulants for E-Motors, power electronics, high-voltage batteries and charging stations

Kisling

Our products are characterized by various temperature resistances, viscosities, curing times, thermal conductivity as well as flexibilities.

# Excellence in Adhesive, Sealant and Encapsulant Manufacturing

#### YOUR BENEFITS

- + Process consulting and on-site support
- + Customised product development
- + Label free products
- + CMR free products
- + Odorless acrylates
- + Direct supply

#### **OUR MARKETS**

- + Lightweight / Composites
- + E-Mobility / Electric Motors
- + Electronics
- + Fluid Technology
- + Bus, Truck & Rail (BTR)/ Automotive
- +Loudspeaker
- + Maintenance, Repair & Overhaul (MRO)

#### OUR PRODUCT RANGE

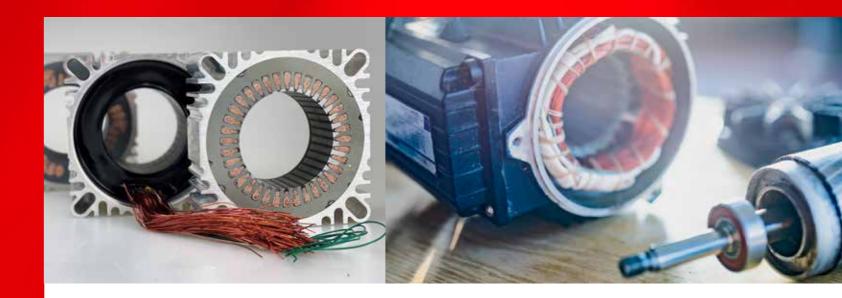
- + Adhesivesand sealants:
- (Meth)Acrylicstructuraladhesives Epoxystructuraladhesives Anarobicadhesives Cyanacrylateinstant adhesives
- Silicones
- + Encapsulants: Polyurethane Epoxy

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Kisling Deutschland GmbH | Salzstraße 15 | DE-74676 Niedernha Mailaddress: Waldstraße 15 | DE-71139 Ehningen Tel +49 7940 50961 61 | info@kisling.com | **www.kisling.com** 



# Adhesives and Encapsulants for E-Mobility



BONDING + SEALING + ENCAPSULATION

**K**isling

MEMBER OF THE WURTH 🗮 GROUP

**BONDING + SEALING + ENCAPSULATION** 

# **Application Areas**, **Key Products & Success Stories**



### Adhesives





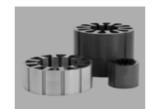
Bonding of permanent magnets

Securing of bolts and nuts motor housing assembling



Bonding of sheet metal

bearings



Bonding of electrical steel packages, commutators and laminations

## **Encapsulants**



**Electrical Motor** 









**High-Voltage Batteries** 

**Charging Stations** 

#### ANAEROBIC

4451 fast curing, high strength NSF certified

4453 fast curing, temp. resistant, high strength, DVGW & NSF certific.

4920 Activator(solvent free)

### EPOXY

7440 black, pasty, high temperatureresistance

## POLYURETHANE

8503 + 8901 Thermal conductivity of 1.5 W/mK, low-viscosity, UL94-V0, medium hardness

8513 + 8973 Thermal conductivity of 2.6 W/mK, self-levelling, UL94-V0

#### 8519 + 8973

Thermal conductivity of 3.5 W/mK, self-levelling, UL94-V0

#### EPOXY

7500 + 7920 Thermal conductivity of 1.2 W/mK, self-levelling, good chemical resistance, cold curing

## ACRYLATE 1039 + 1090

no-mix. medium viscosity. very fast curing, impact resistant

1320 fast curing, high strength, low odour

### 1810

non-sag, high impact resistance, low odour, good bonding to metal, ferrite, glass, ceramic

**DUAL CURING** 

#### 2453 dual-cure, low viscosity, temperature resistand, high strenght

## GAPFILLER

8791 + 8991 1:1 mixing ratio, good flowability, 1.0 W/mK

8792 + 8992 1:1 mixing ratio, Bridges gaps, 2.0 W/mK

8793 + 8993 1:1 mixing ratio, easy to apply, 3,0W/mK

## **1K PASTE**

8702 Thixotropic, non-drving, 2.0 W/mK, silicone-free

8704 High temperature resistance, silicone-free, 3.5 W/mK

# **Success Stories & Customer Benefits**



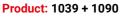
Project: Bonding of pocket magnet

Product: 2453



**Project:** Magnet bonding retarder

Benefit: Fixture time saving of 66 % due to very fast UV curing



**Benefit:** First handling strength already after 30 seconds



**Project:** Permanent magnet in motor housing

Product: 7440

Benefit: Gap filling of 5 mm due to large magnets



**Projekt: Stator Encapsulation** (Industrial Motor)

#### Produkt: 7500 + 7920

Nutzen: Increase of e-motor efficiency due to lower peak temperatures



**Projekt: Encapsulation of Rotor** Positioning Sensor

#### Produkt: 8500 + 8973

Nutzen: Very good flow properties and low density despite high thermal conductivity



Projekt: Battery casting of **Accumulaor Machine** 

#### Produkt: 8605 + 8973

Nutzen: Improved thermal management during operation and charging phase

#### KISLING

- + Manufacturer of adhesives, sealants & encapsulants
- + >70 employees worldwide
- + Revenue 2021: >20 Mio. CHF +>200 products, Swiss made

- +>40 distributors in more than 25 countries