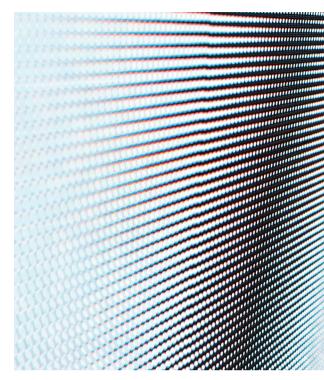
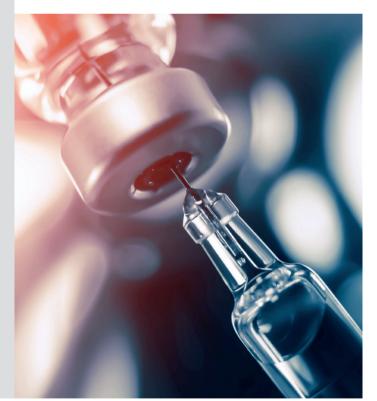
Heraeus **Precious Metals** 













# AVOIDANCE AND EFFICIENCY

20% less energy used in current processes, referring to our base year 2019.

All targets refer to Scope 1&2



# **GREEN ELECTRICITY**

100% green electricity in all regions we are present by 2025, securing competi-



NEW TECHNOLOGIES We will move away from fossil fuels until 2033.



We make your glass precious
Discover Heraeus glass products and solutions

# What makes Heraeus special:

Our core competencies at a glance

- Processing of precious metals and their alloys
- Semi-finished products, solid components for glass production
- DPH (Dispersion Hardened) alloys with reduced rhodium content
- Extending expertise throughout the precious metal cycle including recycling

# What we produce at Heraeus:

Our products for the glass industry

# There is a wide choice of precious metals and their alloys.

The success in glass production is determined by the right material. Heraeus produces several types of equipment for the glass industry, such as:

- Electrically heated feeder systems
- Stirrers & Plungers
- Gobbing stirrers
- Glass fiber bushings
- Cladding glass tools



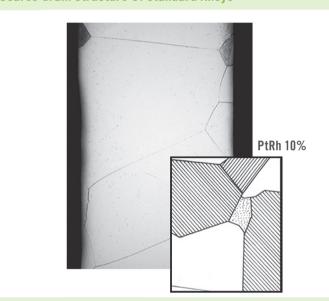
## **Get to know:**

Our DPH Material Portfolio

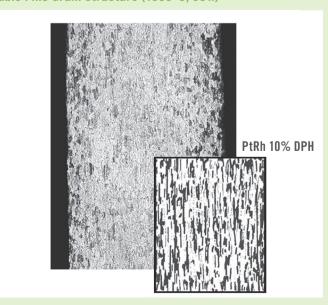
# **Dispersion Hardened Alloys**

- Low Rhodium (Pt and PtRh5) full-value substitute for PtRh10 and PtRh20 alloys
- Typical high corrosion resistance of DPH materials
- Featuring high resistance against grain growth
- Highest ductility well-suited for temperature fluctuation, heat up and cool down phases
- Largely maintaining its properties after welding

#### **Coarse Grain Structure Of Standard Alloys**



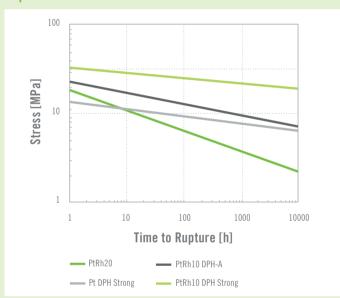
Stable Fine Grain Structure (1600 °C, 30 h)



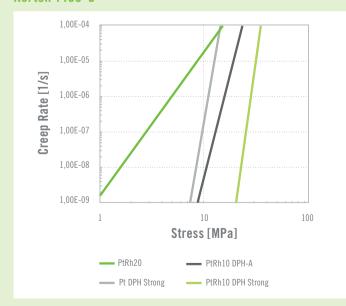
# **DPH Strong Alloys**

- Next generation of DPH-A
- Key applications: hollow stirrer in display applications
- Increased rupture strength by 100%
- Typical corrosion resistance of DPH materials
- Featuring high resistance against grain growth

#### Rupture 1400°C



#### Norton 1400°C



### **Easy access:**

## Our Material Database

Suitable precious metals and alloys are listed in the Heraeus Material Database which offers highest efficiency in material choice:

#### Quick and easy access:

no registration required, browse materials right away

#### Transparency:

find the right material by setting filters, e.g. applications

#### Comparability:

compare up to 4 materials and find out how they perform, e.g. electric resistivity, Young's Modulus, thermal conductivity



Simply scan the QR code and get to know our products.

# **Need personal advice?**Contact our experts at Heraeus



Simply scan the QR code and get in touch with our sales team.