



HERE!

AND HERE, TOO.

Where Can Advanced Ceramics Be Found?

NEARLY
EVERYWHERE...

CeramTec
THE CERAMIC EXPERTS

... WHEREVER PEAK PERFORMANCE IS KEY.

WHETHER AT HOME, IN THE OFFICE, IN INDUSTRIAL MANUFACTURING, IN HOSPITALS OR ON THE ROAD:

We are surrounded by products made from technical ceramics that deliver peak performance – and we usually don't even realize it.

They are used where other materials reach their limits: under enormous stress, in extreme temperatures, under current – and even in the human body. They provide reliable solutions in all types of industrial production and high-tech applications. Technical ceramics get us safely and comfortably to where we are going and provide us with clean energy using more efficient technologies. We communicate digitally on smaller devices and benefit from improved quality of life. Take a look at our brochure and discover all the places you can find advanced ceramics.

IN ENVIRONMENTAL APPLICATIONS



AT HOME



IN THE OFFICE



IN EVERYDAY LIFE



IN INDUSTRIAL MANUFACTURING



IN METAL PROCESSING AND MACHINING



IN MEDICINE



ON THE ROAD



IN ENVIRONMENTAL APPLICATIONS

Antifriction bearings for wind turbines



Cutting materials and tool systems for machining wind turbine components



Substrates and heat-sinks for power electronics in photovoltaic systems and wind power stations



Fuel cell components



Burner nozzles for flue gas desulfurization



Filters for water treatment



Piezo-ceramic sensor elements in biogas plants



Seal rings, bearing bushes and shells in pumps for hydroelectric power plants



Plasma chambers for coating solar cells



Ceramic mill linings for processing raw materials for glass



Bearings and bushings in drives for photovoltaic systems



Insulation rings for thermal decoupling in solar systems



Wire drawing cones for the production of power lines; rolls for rolling flat wires in photovoltaic systems



Piezo-ceramics for energy harvesting



Pipe linings and components for transporting abrasive bulk materials such as coal dust



Tensiometer cells for soil analysis

AT HOME

Filters for water treatment



Regulator discs in sanitary fittings for regulating water flow and temperature



Dipping formers for the production of rubber gloves for household use



Valves and seal rings in dishwashers



Diaphragm cells for chrome plating



Piezo-ceramic gas igniters



Coil bodies, fuse bodies, resistor cores and circuit boards in electronic and electrical home appliances



CeramCool heat-sinks for LED lighting systems



Seal rings for bottle caps as well as plates and doctor rings for printing PET bottles



Grinding discs in fully automatic coffee machines for grinding coffee beans



Cam discs for switching from coffee to hot milk or water



Mills for spices, cocoa; mill linings and grinding balls for food processing



Perforated plates, cutters and knives for cutting and shredding meat



Casings, thermostats and thermocouples for ranges and ovens



Catalyst carriers for the production of plastics



Evaporation elements in ambient air evaporators

IN THE OFFICE

CeramCool heat-sinks
for LED lighting systems



Resistor cores, fuse bodies,
coil bodies and ceramic
circuit boards for electronic
circuits in PCs, cell phones,
monitors and printers



Surge arresters for
telecommunications
systems



Ceramaseal vacuum-tight
products in telecommuni-
cations systems



Rolls, cleaner cones
and dewatering blades
for paper manufacturing



Wafer plates
for the production
of semiconductors



CeramCool heat-sinks
for mainframe systems



IN EVERYDAY LIFE

Plates for coloring
contact lenses



Accelerators
in ball mills
for the production
of cosmetics



Piezo-ceramics
as perfume atomizers



Thread guides, eyelets
and friction discs
for textile production



Catalyst carriers
for the production
of vitamin C



BIOLOX®
hip replacement
elements



Translucent
components
for braces



BIOLOX®
knee replacement
elements



Resistor cores, fuse bodies,
coil bodies and ceramic
circuit boards in consumer
electronics such as
notebooks, cell phones
and MP3 players



Substrates for circuits
in hearing aids
and pacemakers



Piezo-ceramics
for plaque removal



IN INDUSTRIAL MANUFACTURING

Gas nozzles, centering
standard molds, welding
rollers in welding
applications and nozzles
for laser processes



Integrated membranes
for measurement and
control technology
in temperature and
pressure sensors



Seal rings, bearings,
bearing shells, insulat-
ing rings and valves in
mechanical engineering
and robotics



Substrates as circuit
carriers for electronic
machine control



Cutting materials
and tool systems for
machining cast iron,
hardened steels and hard-
to-machine materials



Thermally and dimen-
sionally stable guide
elements and moving
components for precision
measuring machines



Wire drawing
components for wire
and cable production



Ceramic screws
and bolts



Components for bending
and forming metal as
well as punching stand-
ards and positioning
jaws for sheet metal



Piezo-ceramic sensor
elements in equipment
and mechanical
engineering



Piezo ceramics for
ultrasonic cleaning and
ultrasonic welding



Ceramic heat-sinks – also
with liquid cooling – for
high electronic power
densities, e.g. in UV-LED
systems for drying paints

IN METAL PROCESSING AND MACHINING



Components for bending and forming metal as well as punching standards and positioning jaws for metalworking



Protection tubes for temperature measurement



Cores for the production of cavities in casting components



Tubes, slide valves and nozzles for guiding molten masses



SPK cutting materials and tool systems for machining cast iron, hardened steels and hard-to-machine materials



Sliding blocks for heat treatment plants



Metal matrix composite (MMC) preforms for material reinforcement and light-weight construction



Ceramic wear linings for transporting abrasive bulk materials



Gas nozzles, centering standard molds, welding rollers in welding applications and nozzles for laser processes

IN MEDICINE

Ceramic membranes
in respirators



Piezo-ceramics
as atomizers in inhalers



Tubes for
blood plasma



Piezo-ceramics
in lithotripters



CeramCool as a heat-sink
for OR lighting based on
LED technology



Ceramic tubes
for endoscopic devices



Accelerators in ball mills
for the production of
pharmaceuticals



Piezo-ceramics
for ultrasonic scalpels



Ceramaseal vacuum-
tight ceramic-metal
components for analysis
and sensor technology



Ultrasonic flow and
bubble sensor



BIOLOX®
knee replacement
elements



Dipping formers
for the production
of surgical gloves



BIOLOX®
hip replacement
elements



Seal discs, valves,
seal rings in medical
device and equipment
engineering



Coil bodies, fuse bodies,
resistor cores and circuit
boards in electronic
medical devices

ON THE ROAD

SPK cutting tools for machining cast iron and hardened steels, e.g. components for brake or transmission systems



Preforms for material reinforcement and light-weight construction in engines



Cores for piston casting



Valve plates in common rail injection systems



Cyrol® Ceramic Bearing Rollers



Coil bodies, fuse bodies, resistor cores and substrates in automotive electronics



Bearing bushes in exhaust gas control valves



Insulation components in lambda sensors



Axial bearings/seal rings in coolant pumps



Circuit boards in oil pressure sensors for measuring oil level and pressure



Welding nozzles and centering pins for MAG welding in car body construction



CeramTape ceramic tapes for hybrids in control elements and lambda sensors



Side plates in fuel pumps



CeramCool heat-sinks for LED lighting systems



Piezo-ceramic elements as signal transmitters and receivers in distance sensors and signal transmitters in knock sensors



Risers for aluminum casting of alloy rims



Insulation rings in brake calipers



Cam discs in ABS modulators

