triduon® thermo
tames Temperature
The mixing cartridge with ceramic discs and thermostatic scalding protection
Unsurpassed comfort plus scalding protection

triduon® thermo

The mixing cartridge with ceramic discs and thermostatic scalding protection from CeramTec offers an excellent comfort zone and protects against scalding. triduon® thermo is ideal for household use – even for homes with solar thermal systems – and a perfect solution for both spa & wellness and in washroom facilities where scalding protection is required by law such as in preschools, kindergartens and nursing homes.

If the data sheets are missing, use this download link:
www.triduon.com/downloads
COMFORT ZONE FOR THE PERFECT TEMPERATURE – triduon® thermo is simple, safe and comfortable to use thanks to a maximum temperature setting that cannot be exceeded. Thanks to the high-quality materials this cartridge easily captures peaks in pressure (see triduon® thermo data sheet) and is particularly chemically resistant. It is the hidden force behind a single-handle mixer. See the triduon® thermo data sheet for information on the technical specifications.
The mixing cartridge with ceramic discs and thermostatic scalding protection for small fittings

Excellent comfort zone with a 35° angle

High sensitivity

CeramTec quality – made in Germany

High-grade Ceramdisc® ceramic discs

Globally certified materials

Controlled gap

Proven service life

High-strength EMS-GRIVORY® plastic

Thermal control element

Optional:
Volume screw and check valves (boreholes provided)
COMFORT

Always a pleasant temperature with triduon® thermo
WHETHER SPA FACILITIES, WASHROOMS OR HOMES WITH SOLAR THERMAL SYSTEMS: triduon® thermo is the perfect solution for regulating mixed water because it combines an excellent comfort zone with maximum protection. The temperature is always pleasant with triduon® thermo, even when differential pressure (see triduon® thermo data sheet) fluctuates or the source water is too hot.

EXCELLENT COMFORT ZONE
WITH A 35° ANGLE

Every single-handle mixer with a triduon® thermo cartridge perfectly regulates water temperature while offering a surprisingly large comfort zone with a 35° angle. The high sensitivity of the system lets you precisely control the water temperature within the comfort zone. This is all thanks to the complex geometry of the ceramic discs at the heart of the cartridge. It’s a unique advantage that customers are sure to appreciate at hair salons, spas and, of course, in the shower at home.

COMPENSATES PRESSURE
AND TEMPERATURE DIFFERENCES

Pressure can change when water is used simultaneously by multiple systems, as can the water temperature – for example, in homes with solar thermal systems where temperatures can exceed 194°F / 90°C on hot summer days. The triduon® thermo provides the necessary compensation for unsurpassed comfort and safety without pressure or temperature fluctuations.
PROTECTION

triduon® thermo
protects against scalding
BOILING-HOT WATER IS GREAT FOR TEA,
but painful and dangerous to the skin. The triduon® thermo cartridge lets you
set a maximum temperature that cannot be exceeded to prevent scalding. It’s a
safer solution that protects children, senior citizens – and us all.

PROTECT YOURSELF AND EVERYONE ELSE
WITH A PRESETTABLE MAXIMUM TEMPERATURE

Fittings with a triduon® thermo cartridge offer a very simple, yet effective solution wherever scald-
ing protection is desired or required. The triduon® thermo lets you set a maximum temperature (e.g.
106°F / 41°C or 113°F / 45°C), which the water leaving the outlet does not exceed. It’s an intelligent so-
lation that not only makes sense in the shower and for the bidet, but also in washrooms at preschools,
kindergartens and nursing homes to protect these sensitive children and seniors against scalding.

SCALDING PROTECTION IS IMPORTANT

70 % of all injuries in children under the age of four are caused by burns (Papini, Dziewul-
ski: ABC of Burns. BMJ Publishing Group, 2001). Adults will receive third-degree burns
after 31 seconds when the water temperature is 129°F / 54°C; for small children, it only
takes ten seconds – and if the water temperature is 140°F / 60°C, one second is enough.
What’s the reason behind this? Small children have thinner skin. Scars take longer to form
and finish developing, and they stretch more as children grow. With a proportionately
larger body surface area than adults, children are also at a disadvantage if the burns are
extensive as their body dehydrates faster and loses more heat.
Senior citizens are another risk group because skin becomes thinner and more sensitive
with age. Australia and other countries have special legal requirements regarding scald-
ing protection for precisely this reason. In Germany, the DIN 18024 (Part 2) standard
stipulates that the maximum water temperature for sanitary fittings in public buildings
must not exceed 113°F / 45°C.

PROTECTION AGAINST LEGIONELLA ALSO REQUIRES SCALDING PROTECTION

Legionella protection is an important topic, especially in public facilities. Water in public
buildings must be heated to 158°F / 70°C periodically to protect against legionella. This can
be dangerous and lead to burns. triduon® thermo offers a reliable solution to this problem by
eliminating this risk. A controlled system that flushes the fitting via a separate water outlet
can provide additional protection against legionella.
triduon® thermo CARTRIDGES
are made in Germany using only the highest quality approved materials – e.g. Ceramdisc® ceramic seal discs, plastic from EMS-GRIVORY®, POM parts and EPDM seal components with long-life lubricants. They are endurance tested up to 500,000 cycles with nine motions (corresponds to 4.5 million full motions) and are regularly checked and improved.

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CERAMDISC® CERAMIC DISCS ARE NEARLY AS HARD AS DIAMOND

At the heart of the triduon® thermo cartridge are the nearly diamond-hard Ceramdisc® ceramic discs with CeramTec’s special geometry. Any particulates in the water such as sand, rust or lime are ground between the sliding surfaces without damaging the discs. The ceramic discs effortlessly compensate for temperature and pressure peaks (see triduon® thermo data sheet).

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EMS-GRIVORY® PLASTIC STRONG AS METAL, BUT RESISTANT

triduon® thermo cartridges get their black color from the high-strength plastic from EMS-GRIVORY®. Key properties include its maximum rigidity and strength as well as its exceptional chemical resistance in most applications.

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LONG SERVICE LIFE

triduon® thermo cartridges meet all endurance requirements and are thoroughly tested at CeramTec’s own cartridge test center where they must withstand 500,000 cycles with nine motions, which corresponds to 4.5 million full motions.

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GLOBALLY CERTIFIED MATERIALS

Every triduon® thermo cartridge meets the specific material requirements stipulated by KTW as well as the specifications of WRAS, NSF and ACS. triduon® cartridges are therefore approved for the global sanitary industry. For more information about quality management and certifications for seal discs and cartridges, visit www.triduon.com/quality
QUALITY

Made in Germany
triduon® STANDA

TOP QUALITY FOR STANDARD CARTRIDGES

triduon® high-quality cartridges made in Germany are also available as standard cartridges without thermostatic control elements. The cartridges feature both open and closed designs with various diameters for single-handle mixers and come in a “Comfort” and “High-flow” version.
SUPERIOR COMFORT AND CERAMIC SEAL DISCS

All triduon® standard cartridges offer a large comfort zone, feature Ceramdisc® couplings with special geometries and are made of the same high-grade materials as triduon® thermo cartridges.

OPTIONAL ACCESSORIES

Optional accessories like flow and mechanical temperature limiters and check valves are also available for all triduon® cartridge system models.
MADE BY CERAMTEC

The mixing cartridge with ceramic discs and thermostatic scalding protection from the technical ceramics specialists

PRODUCER AND LICENSEE FOR triduon® thermo IS CERAMTEC, one of the world’s leading manufacturers of advanced ceramics from Germany and maker of the first ceramic seal discs for sanitary cartridges and numerous groundbreaking products made from technical ceramics in many key industries.

CERAMIC EXPERTISE WITH CARTRIDGE KNOW-HOW

In 2006, CeramTec acquired the cartridge production facilities from Ideal Standard in Wittlich, where the world’s first ceramic cartridge was born in 1970. The technical ceramics engineers at CeramTec then created a new standard cartridge in proven CeramTec quality: triduon®. Production started in 2009.

CERAMTEC – THE CERAMIC EXPERTS

The CeramTec Group develops, produces and distributes products made from technical ceramics that are used everywhere other materials reach their limits. This makes them absolutely essential in automotive construction, electronic applications, medical engineering, industrial manufacturing as well as in environmental and energy technology. The CeramTec Group is represented worldwide by its 17 sites and over 3,000 employees. The Group’s annual revenue is over 400 million euros.
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