

Recycling your carbide with CERATIZIT

Ecological, Sustainable, Economical



CERATIZIT is a high-technology engineering group specialised in cutting tools and hard material solutions.

Tooling a Sustainable Future

ceratizit.com



CERATIZIT Group

For over 100 years, CERATIZIT has been a pioneer in developing exceptional hard material solutions for machining and wear protection. The private company, with registered offices in Mamer, Luxembourg, develops and produces highly specialized cutting tools, indexable inserts, rods made from hard materials and wear parts.

The CERATIZIT Group is the global market leader in various application segments and successfully develops new carbide and cermet grades, such as for wood and stone working.

Facts & figures

 **Headquarters**
Mamer, Luxembourg



30 production sites



30 % of products developed in the last 5 years



2⁰⁰ R&D employees



80 countries in which we are active



7⁰⁰⁰ employees



25 innovation awards



1⁰⁰⁰ patents & utility models



1^{00 000} products



€ **1.5**^{bn} turnover

Efficient recycling technologies

Recycling methods, high-quality carbide grades

The CERATIZIT Group has developed and optimized processing methods to convert carbide products after use to recyclable powder. Our mission is to recycle the used carbide completely while keeping energy consumption to a minimum.

Methods for reducing the carbide end-product to the basic material for recycling

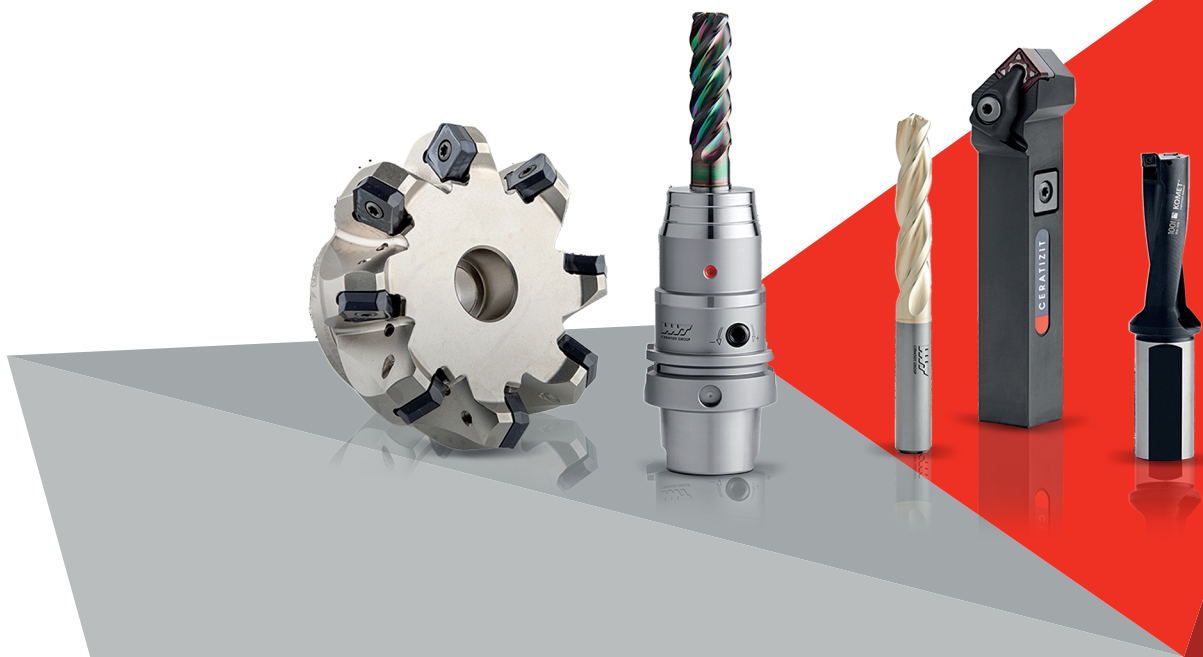
The thermal zinc process – with high tungsten carbide content and very low use of chemicals

This process involves thermal treatment of cemented carbide with zinc, resulting in a powder which contains over 99% of the tungsten carbide in its original form, along with metallic cobalt and other additives such as grain growth inhibitors.

The chemical process – with low tungsten carbide content and very low energy use

The chemical recycling process is suited to all types of carbide, including grinding slurries and batches with low carbide content. The metallic components are dissolved and converted to oxides, from which pure tungsten metal and carbide powder can then be obtained.

In both processes, we work closely with our partner Global Tungsten & Powders (GTP) in the USA.



Social and ecological responsibility

Minimizing energy consumption

Minimizing dependence

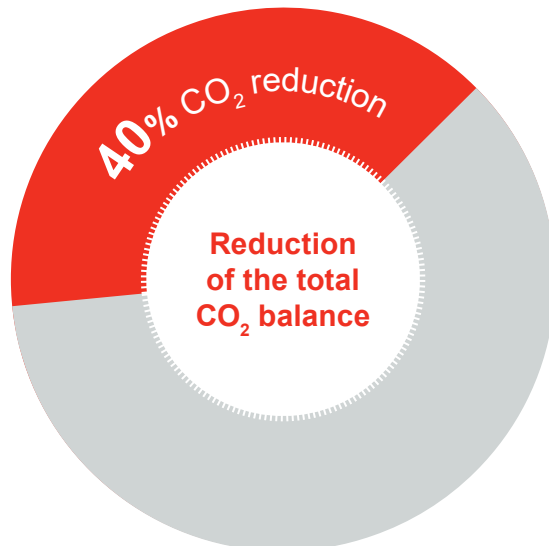
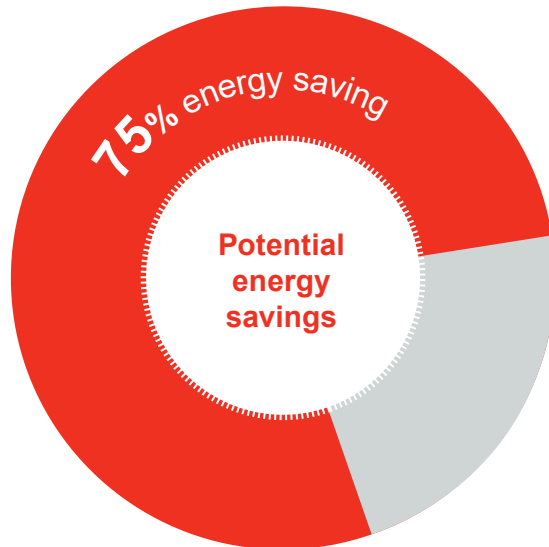
One goal of the CERATIZIT Group's supply purchasing policy is to reduce dependence on single regions and suppliers. We also try to procure our raw materials from conflict-free and sustainable sources. More than 80% of tungsten primary production comes from the People's Republic of China, and over 60% of cobalt is extracted in the Democratic Republic of Congo.

Conflict-free certificate for raw material procurement

CERATIZIT relies only on business relationships with members of the TI-CMC (Tungsten Industry Conflict Minerals Council) who are known to be conflict-free tungsten producers or are applying for certification. CERATIZIT is a founding member of the TI-CMC working group, which has developed a standardized process to verify tungsten producers' compliance with requirements. With the support of TI-CMC, we are committed to the conflict-free procurement of tungsten and the adherence to TI-CMC directives.

Potential savings for secondary raw materials

Based on a sustainable energy and environment management, the extraction of tungsten and cobalt from secondary raw materials through recycling is highly efficient.

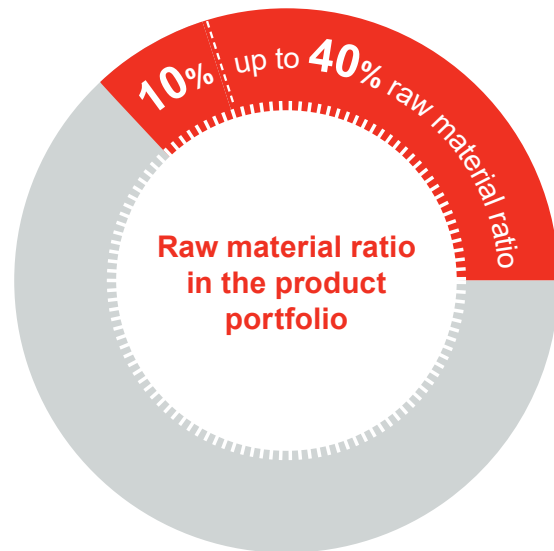


The benefit to you: we close the cycle

From the secondary raw material to the finished product

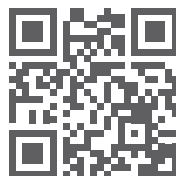
In both external and internal processes, the CERATIZIT Group continually optimizes the yield rate avoiding the accumulation of secondary raw materials. The regrinding service we offer to our customers also contributes decisively to sustainability.

**We help you every step of the way,
with quantity-specific containers and
transport solutions.**



Recycle with CERATIZIT in 4 easy steps

1. Fill out the recycling form on our website at www.ceratizit.com/recycling
2. Look for a response back within 48 hours to discuss process & arrange shipment
3. Finalize agreement and ship carbide
4. Receive payment



We would be happy to work with you in a long-term partnership to optimize the cycle from sales, scrap take-back, and production through to resale.



Sustainability is not a goal, it's a mission

Together for Sustainability

Leading in sustainability by 2025

Our mission is just as clear as it is difficult to accomplish. By 2025, we aim to be the sustainability leader for the hard metals and cutting tool industry. To meet this ambitious objective and become truly sustainable, we are implementing an array of sustainability measures along the entire value chain. However, we're not just keeping our sustainability ethos in-house, it will help set new standards for cooperating with partners moving forward.



Climate neutral by 2025

We recognize our responsibility to be good stewards to the climate and are going to great lengths to keep our carbon footprint to a minimum. The United Nations' Sustainable Development Goals aim to achieve net-zero carbon emissions by 2050. We think we can do better and aim to be net-zero by 2040.

- ▲ **By 2025:** Climate neutral, emissions reduced by 35 %
- ▲ **By 2030:** Combined reduction of 60 %
- ▲ **By 2040:** Net zero, emissions reduced by 90 %



Reduce the use of virgin raw materials

To reduce the mining of virgin raw materials, our mission is to increase the share of raw materials remaining in the carbide production chain to over 95 % by 2030 (based on scrap recycling rates of sintered products).

Read more about our sustainability approach on our website.
ceratizit.com





Be part of our sustainable material cycle!

If you have further questions, our
experts are available at any time.

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