»CARBIDE AND COATINGS

CONVEYING MIXING EXTRUDING Consistent. Lasting. Dimensional stability.



» CARBIDE TECHNOLOGY

Parts, tools and components made of cemented carbide are **the ultimate in** wear resistance and longevity and ensure utmost versatility. DURIT carbide solutions stand up to the toughest demands.

» DEDICATED TO CARBIDE

Carbide from a single source—from blanks to high-precision final products. DURIT produces **customized parts** and realizes **individual shapes** as well as **complex geometries**.

» WE OFFER FULL-SERVICE CARBIDE



M » DURIT HARTMETALL

» SINCE 1982

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- Successful and solution-oriented
- » OVER 500 EMPLOYEES Worldwide
- » MORE THAN 60 CARBIDE GRADES For wear protection and metal forming
- **» 100 % COATING EXPERTISE** HVOF, APS, EAWS, Laser Cladding, PVD and CVD

» WEAR PROTECTION FOR CONVEYING, MIXING, EXTRUDING

Cemented carbide components and tools are successfully applied in many processes to **prevent premature wear,** including the field of conveying, mixing and extruding, which plays an important role in many different industry sectors. DURIT has **excellent references** in this special area and creates first-grade, consistent solutions for all requested applications.

» WE SOLVE WEAR PROBLEMS

Consistency, longevity and dimensional stability are essential demands in this field of application. Cemented carbide offers the perfect solution for many of these challenging applications.

» WITHSTANDS MOST EXTREME DEMANDS

Products ::

extruder screws · augers · screw segments · mixer paddles · linings · sleeves · perforated and multi-hole plates · mouthpieces · shaping rolls · scrapers · kneading bolts

Typical applications ::

ceramics · plastics industry · paints and coatings · concrete industry for roof tiles · food industry · composites and more

Selection of application-specific carbide grades ::

GRADE	Composition	Binder (%)	Grain size	Hardness (HV30)	Fracture toughness (MPa * m ^{1/2})
GD08F	WC-Co	8,00	submicron	1625	10
GD13F	WC-Co	10,00	submicron	1540	12
GD10	WC-Co	6,00	medium	1600	10
GD15	WC-Co	8,00	medium	1460	12
GD20	WC-Co	10,00	medium	1350	15
GD30	WC-Co	15,00	medium	1150	15,5
GD10N	WC-Ni	7,00	fine	1530	10
GD20N	WC-Ni	9,00	fine	1400	10
GD10NC	WC-Ni/Cr	6,80	fine	1630	11,5

» COATING TECHNOLOGY

DURIT coatings **distinctly increase resistance** of tools, components and parts. Our experts realize **high-tech solutions** that stand out through highly specific properties.

» MORE EFFECTIVE AGAINST WEAR

In addition to solid cemented carbide, advanced coatings achieve optimized results, especially on large-volume parts. **Thermal spray coatings** and **laser cladding** perfect various high-precision components. In many cases DURIT coatings are the perfect choice to **increase productivity.**

» TARGETED IMPROVEMENT OF PRODUCTIVITY

LASER CLADDING » Alloys

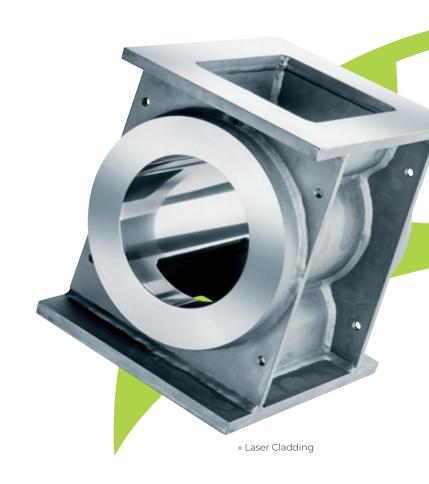
Weldable powders (carbides, metals) comparable with Stellite, Triballoy, Colmoloy, Hastalloy, Inconel or similar

HVOF High Velocity Oxygen Fuel

» Carbides

WC/Co	WC/Co	-Cr	WC/Ni	
WC/NiC	rBSiFe	Cr ₂ C ₃ /NiCr		





» DURIT METALURGIA PORTUGUESA DO TUNGSTÉNIO, LDA.

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