

» CARBIDE AND COATINGS

OIL GAS PETROCHEMICALS

Enduring. Corrosion-proof.

DURIT



» 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

HARDFACTS

» DURIT HARTMETALL

» SINCE 1982

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 OIL, GAS AND PETROCHEMICALS

Erosion, abrasion, corrosion: DURIT products outperform throughout all areas of **offshore technology, exploration technology, drilling technology and power generation**—applications in which cemented carbide is the perfect solution.

» WE SOLVE WEAR PROBLEMS

Abrasive solids, sand and liquids cause enormous wear in production and processing operations. DURIT realizes **first-grade carbide and coating solutions for all these applications.**

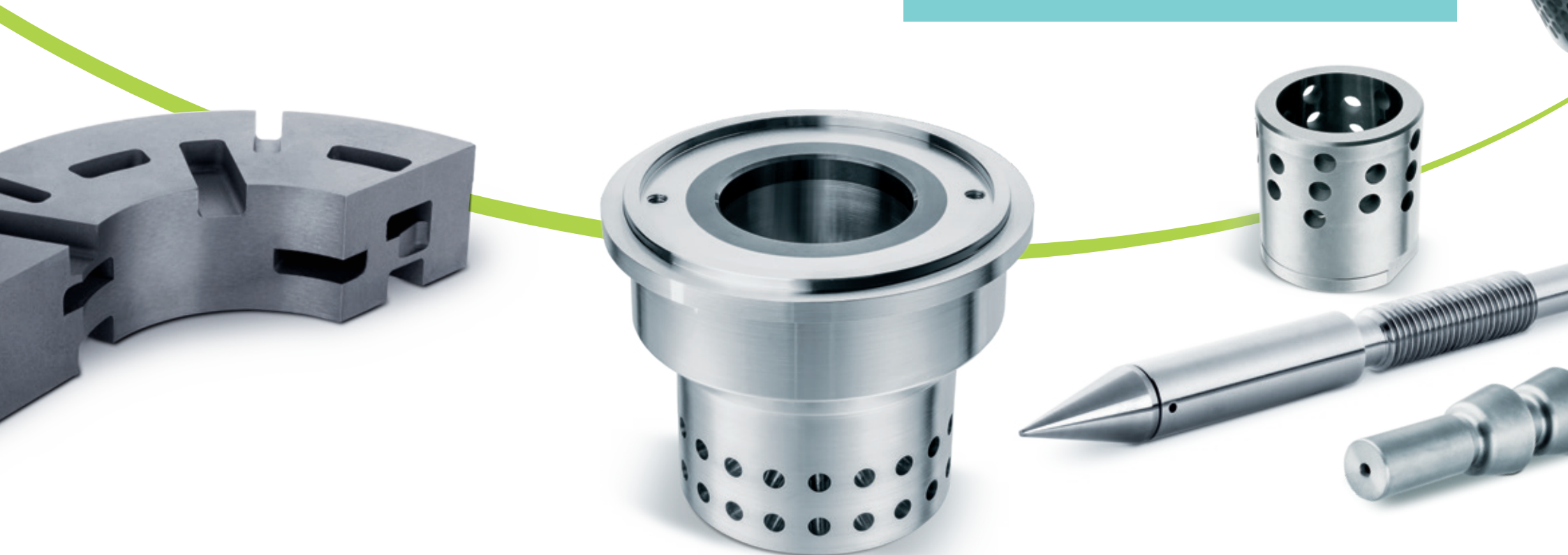
» WITHSTANDS MOST EXTREME DEMANDS

Products ::

disc stacks • valve inserts • bearing sleeves • pistons • balls and seats • sleeves • nozzles • complex components for extreme applications

Typical applications ::

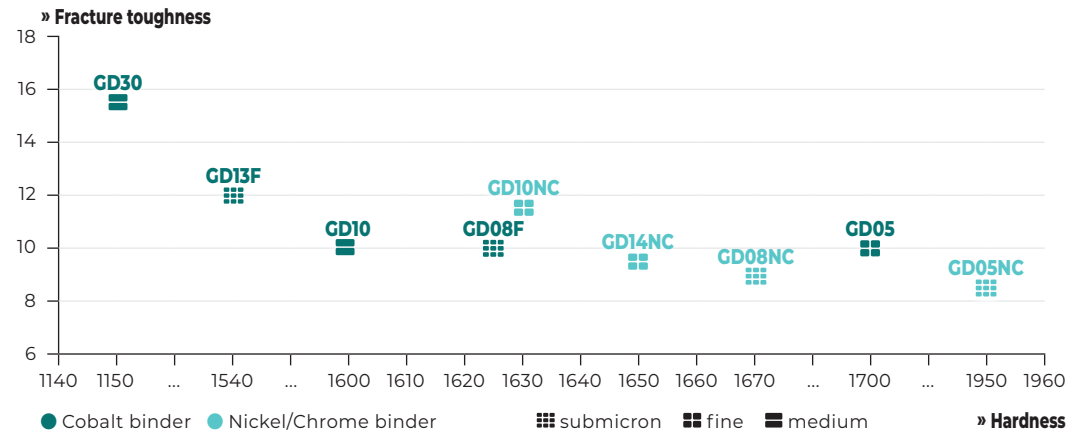
control valves • drill drives • check valves • choke valves • shut-off valves • processing systems • onshore • offshore





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
GD05	WC-Co	5,50	fine	1700	10
GD10	WC-Co	6,00	medium	1600	10
GD30	WC-Co	15,00	medium	1150	15,5
GD05NC	WC-Co/Ni/Cr	5,80	submicron	1950	8,5
GD08NC	WC-Ni/Cr	8,80	submicron	1670	9
GD10NC	WC-Ni/Cr	6,80	fine	1630	11,5
GD14NC	WC-Co/Ni/Cr	7,60	fine	1650	9,5



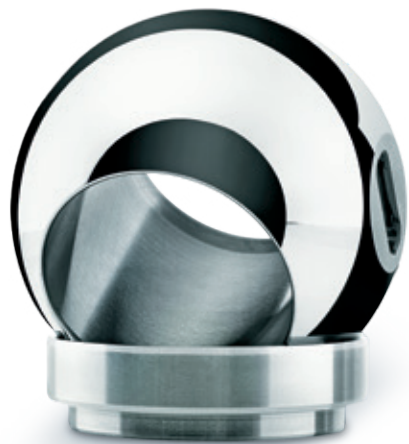
» COATING TECHNOLOGY

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, laser cladding** and **PVD coatings** perfect various high-precision components. In many cases DURIT coatings are the perfect choice to **increase productivity**.

» TARGETED IMPROVEMENT OF PRODUCTIVITY



» HVOF WC/Co



» PVD UltraImpact EXCELL®



» CRC-MAX



LASER CLADDING

» Alloys

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

HVOF

High Velocity Oxygen Fuel

» Carbides

WC/Co WC/Co-Cr WC/Ni

WC/NiCrBSiFe Cr₂C₃/NiCr

PVD

Physical Vapour Deposition PVD represents protection, optimization and refinement—for targeted efficiency

MegaTiN® HardTiL ULTRA® DuraLub®

HardSilk® UltraImpact EXCELL®



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takes you to **EXTREMES**

