

» CARBIDE AND COATINGS

# **POWDER PRESSING AND TABLETING**

**Wear-resistant. Pressure-resistant. Efficient.**

**DURIT**



## 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

## » CARBIDE TECHNOLOGY

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





## » WEAR PROTECTION FOR POWDER PRESSING AND TABLETING

Substances and mixtures with abrasive components often play a role in powder pressing and tableting processes. The use of cemented carbide achieves **permanent contour accuracy** and a **significantly longer service life**.

### » WE SOLVE WEAR PROBLEMS

Compared to steel tools, cemented carbide **increases the service life by up to 50 times**. In the chemical and pharmaceutical industries, but also in the automotive sector, DURIT's **high-tech solutions** have been tried and tested for years.

### » WITHSTANDS MOST EXTREME DEMANDS

### Products ::

tableting tools · dies · punches · punch inserts · centering pins · arbors · sleeves · carbide-faced press molds · press mold linings · filling and feed table plates · individual pressing tools

### Typical applications ::

chemical industry · automotive industry · pharmaceutical industry · sintered metal production · magnet production · dental technology · industrial and technical tableting · refractory industry



## Selection of application-specific carbide grades ::

GRADE	Composition	Binder (%)	Grain size	Hardness (HV30)	Fracture toughness (MPa·m <sup>1/2</sup> )
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
BD20	WC-Co	10,00	coarse	1215	19



# » 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



» PVD MegaTiN®

## 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 Cr<sub>2</sub>C<sub>3</sub>/NiCr

## PVD

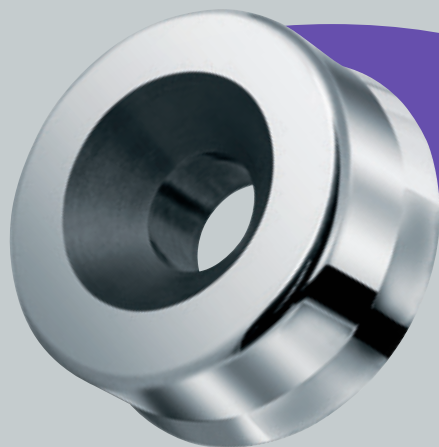
Physical Vapour Deposition  
PVD represents protection, optimization and refinement—for targeted efficiency

MegaTiN® HardTiL ULTRA® DuraLub®

HardSilk® UltraImpact EXCELL®



» HVOF WC/Co



» **DURIT METALURGIA PORTUGUESA  
DO TUNGSTÊNIO, LDA.**

Zona Industrial – Arruamento C  
3854-184 Albergaria-a-Velha  
Portugal  
T +351 234 529 810  
comercial@durit.pt

[durit.com/pt](http://durit.com/pt)

» **DURIT IBÉRICA, S.L.**

Calle Rozabella 6, EDIF. París  
1A Planta, Oficina 20  
28290 Las Rozas de Madrid  
España  
T +34 916 400 911  
duritiberica@durit.es

[durit.com/es](http://durit.com/es)

» **DURIT BRASIL LTDA**

Via de Penetração III, 519  
Centro Industrial de Aratu  
43700-000 Simões Filho/Bahia  
Brazil  
T +55 71 2106-0544  
comercial@durit.com.br

[durit.com.br](http://durit.com.br)

» **DURIT HARTMETALL GMBH**

Linderhauser Straße 139  
D-42279 Wuppertal  
Germany  
T +49 202 55 109 0  
F +49 202 55 109 25  
info@durit.de

[durit.com](http://durit.com)

**takes you to EXTREMES**

