

HICOAT® coating HC-FEP for iron and steel materials



Advantages:

- Mainly used for work on steel and cast iron
- High hardness and wear resistance
- Effective chip removal through improved anti-adhesion characteristics
- Very high resistance against thermal load
- Increased tool life

HICOAT® coating HC-HT for high-temperature-resistant materials



Advantages:

- Mainly used for high-temperature-resistant non-ferrous metals
- Low friction values, low heat generation
- Good oxidization resistance and reduced chemical wear
- Increased tool life

HICOAT® coating HC-NFE for aluminium and non-ferrous metals



Advantages:

- Mainly used for long-chipping and lubricating non-ferrous metals
- Highest stock removal performance
- Effective chip removal through improved anti-adhesion characteristics
- Lower thermal loads
- Increased tool life

Recommended rotational speed range

To determine the recommended cutting speed range [m/min], please proceed as follows:

- ➊ Select the material group to be machined
- ➋ Determine the type of application
- ➌ Select the cut
- ➍ Establish the cutting speed range

To determine the recommended rotational speed range, please proceed as follows:

- ➎ Select the required burr diameter
- ➏ The cutting speed range and the burr diameter determine the recommended rotational speed range

➊ Material group		➋ Application	➌ Cut	Coating	➍ Cutting speed	
Steel, cast steel	Non-hardened, non-heat-treated steels up to 1,200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steel	Coarse stock removal	3 PLUS	HC-FEP	450–600 m/min
	Hardened, heat-treated steels over 1,200 N/mm ² (> 38 HRC)	Tool steels, tempering steels, alloyed steels, cast steel				250–350 m/min
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys, brass, copper, zinc	Coarse stock removal	ALU	HC-NFE	600–1,100 m/min
			Fine stock removal			900–1,100 m/min
	High-temperature-resistant materials	Nickel-based and cobalt-based alloys (engine and turbine construction)	Coarse stock removal	4	HC-HT	250–450 m/min
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL (GG), with nodular graphite/ nodular cast iron EN-GJS (GGG), white annealed cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	Coarse stock removal	3 PLUS	HC-FEP	450–600 m/min
Plastics, other materials	Fibre-reinforced plastics (GRP/CRP), thermoplastics		Coarse stock removal	ALU	HC-NFE	450–1,100 m/min
			Fine stock removal			

Example:

TC burr,
Cut 3 PLUS HC-FEP
Burr dia. 12 mm.
Coarse stock removal on non-hardened, non-heat-treated steels.
Cutting speed: 450–600 m/min
Rotational speed: 12,000–16,000 RPM

➎ Burr dia. [mm]	➏ Cutting speed [m/min]					
	250	350	450	600	900	1,100
Rotational speed [RPM]						
3	27,000	37,000	48,000	64,000	95,000	117,000
6	13,000	19,000	24,000	32,000	48,000	59,000
8	10,000	14,000	18,000	24,000	36,000	44,000
10	8,000	11,000	14,000	19,000	29,000	35,000
12	7,000	9,000	12,000	16,000	24,000	30,000

In general, all PFERD tungsten carbide burrs are also available with HICOAT® coatings. Contact us. Our worldwide sales addresses can be found at: www.pferd.com.

Tungsten carbide burrs

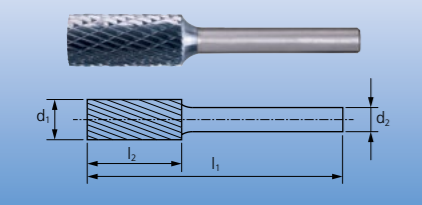
TC burrs with HICOAT® coating HC-FEP



Tungsten carbide burrs

TC burrs with HICOAT® coating HC-FEP

Cylindrical shape ZYA



Cylindrical burr according to DIN 8032 with cut conforming to DIN 8033.

Ordering example:
EAN 4007220835548
ZYA 0616/6 Z3 PLUS HC-FEP

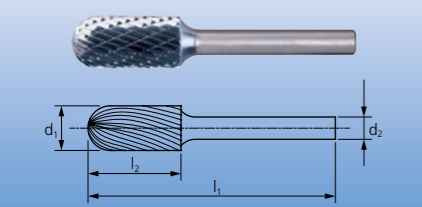


Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	
	3 PLUS						
							
	EAN 4007220						

Shank dia. 6 mm


ZYA 0616/6	835548	HC-FEP	violet-grey	6	6 x 16	55	1
ZYA 1225/6	835555	HC-FEP	violet-grey	6	12 x 25	65	1

Cylindrical shape with radius end WRC



Cylindrical burr with radius end according to DIN 8032, with cut conforming to DIN 8033. Combination of cylindrical and ball-shaped geometries.

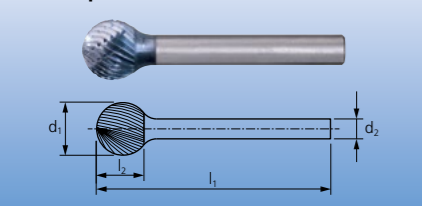
Ordering example:
EAN 4007220835562
WRC 0616/6 Z3 PLUS HC-FEP

Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	
	3 PLUS						
							
	EAN 4007220						

Shank dia. 6 mm

WRC 0616/6	835562	HC-FEP	violet-grey	6	6 x 16	55	1
WRC 1225/6	835579	HC-FEP	violet-grey	6	12 x 25	65	1

Ball shape KUD



Ball-shaped burr according to DIN 8032 with cut conforming to DIN 8033.

Ordering example:
EAN 4007220835586
KUD 0605/6 Z3 PLUS HC-FEP

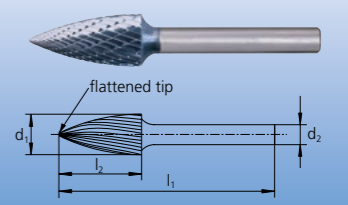


Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	
	3 PLUS						
							
	EAN 4007220						

Shank dia. 6 mm

KUD 0605/6	835586	HC-FEP	violet-grey	6	6 x 5	45	1
KUD 1009/6	835593	HC-FEP	violet-grey	6	10 x 9	49	1
KUD 1210/6	835609	HC-FEP	violet-grey	6	12 x 10	45	1

Pointed tree shape SPG



Pointed tree-shaped burr according to DIN 8032 with cut conforming to DIN 8033, flattened tip.

Ordering example:
EAN 4007220835630
SPG 0618/6 Z3 PLUS HC-FEP



Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	
	3 PLUS						
							
	EAN 4007220						

Shank dia. 6 mm

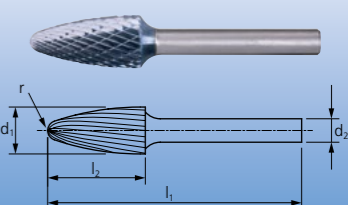
SPG 0618/6	835630	HC-FEP	violet-grey	6	6 x 18	55	1
SPG 1225/6	835654	HC-FEP	violet-grey	6	12 x 25	65	1


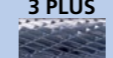


Tree-shaped burr with radius end according to DIN 8032 with cut conforming to DIN 8033.

Ordering example:
EAN 4007220835616
RBF 0618/6 Z3 PLUS HC-FEP

Tree shape with radius end RBF

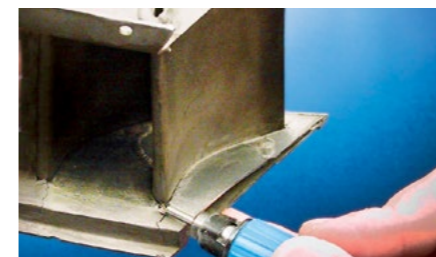


Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Radius r [mm]	
	3 PLUS							
								
	EAN 4007220							

Shank dia. 6 mm

RBF 0618/6	835616	HC-FEP	violet-grey	6	6 x 18	55	1.5	1
RBF 1225/6	835623	HC-FEP	violet-grey	6	12 x 25	65	2.5	1

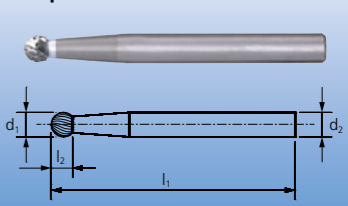
TC burrs with HICOAT® coating HC-HT



Ball-shaped burr according to DIN 8032 with cut conforming to DIN 8033.

Ordering example:
EAN 4007220533574
KUD 0302/3 Z4 HC-HT

Ball shape KUD



Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	
	4						
							
	EAN 4007220						

Shank dia. 3 mm

KUD 0302/3	533574	HC-HT	silver-grey	3	3 x 2	33	1
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Tungsten carbide burrs

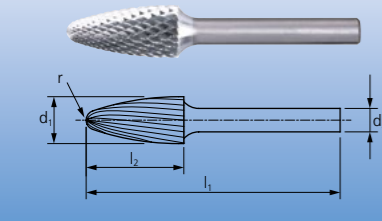
TC burrs with HICOAT® coating HC-HT



Tungsten carbide burrs

TC burrs with HICOAT® coating HC-NFE

Tree shape with radius end RBF



Tree-shaped burr with radius end according to DIN 8032 with cut conforming to DIN 8033.

Ordering example:
EAN 4007220**533581**
RBF 0613/3 Z4 HC-HT

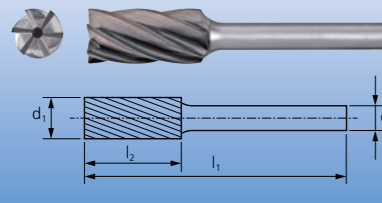
Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Radius r [mm]	Image
	4							
	EAN 4007220							

Shank dia. 3 mm

RBF 0613/3	533581	HC-HT	silver-grey	3	6 x 13	43	1.5	1
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TC burrs with HICOAT® coating HC-NFE

Cylindrical shape ZYAS with end cut



Cylindrical burr according to DIN 8032 with circumferential and end cut.

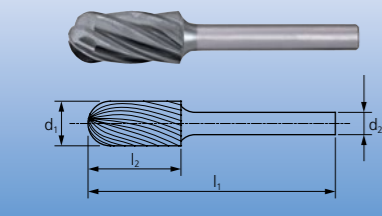
Ordering example:
EAN 4007220**804117**
ZYAS 1225/6 ALU HC-NFE

Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Image
	ALU						
	EAN 4007220						

Shank dia. 6 mm

ZYAS 1225/6	804117	HC-NFE	black-grey	6	12 x 25	65	1
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Cylindrical shape with radius end WRC



Cylindrical burr with radius end according to DIN 8032. Combination of cylindrical and ball-shaped geometries.

Ordering example:
EAN 4007220**804131**
WRC 1225/6 ALU HC-NFE



Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Image
	ALU						
	EAN 4007220						

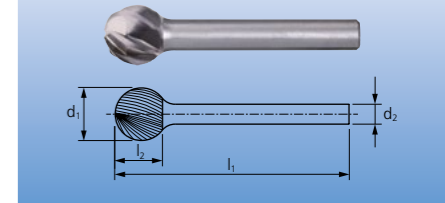
Shank dia. 6 mm

WRC 1225/6	804131	HC-NFE	black-grey	6	12 x 25	65	1
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Ball-shaped burr according to DIN 8032.

Ordering example:
EAN 4007220**804155**
KUD 1210/6 ALU HC-NFE

Ball shape KUD



Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Image
	ALU						
	EAN 4007220						

Shank dia. 6 mm

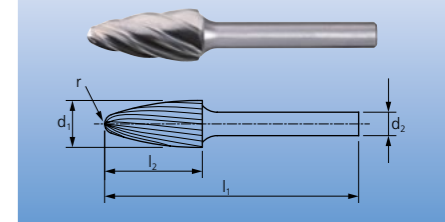
KUD 1210/6	804155	HC-NFE	black-grey	6	12 x 10	50	1
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Tree-shaped burr with radius end according to DIN 8032.

Ordering example:
EAN 4007220**533192**
RBF 1225/6 ALU HC-NFE

Tree shape with radius end RBF



Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Radius r [mm]	Image
	ALU							
	EAN 4007220							

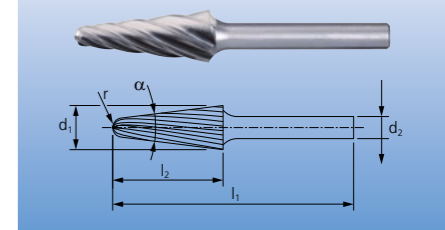
Shank dia. 6 mm

RBF 1225/6	533192	HC-NFE	black-grey	6	12 x 25	65	2.5	1
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Conical burr with radius end according to DIN 8032.

Ordering example:
EAN 4007220**533093**
KEL 1230/6 ALU HC-NFE

Conical shape with radius end KEL



Description	Cut	Coating	Coating colour	Shank dia. d ₂ [mm]	Burr dia. x length d ₁ x l ₂ [mm]	Overall length l ₁ [mm]	Angle α	Radius r [mm]	Image
	ALU								
	EAN 4007220								

Shank dia. 6 mm

KEL 1230/6	533093	HC-NFE	black-grey	6	12 x 30	70	14°	2.5	1
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