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Virial, Ltd

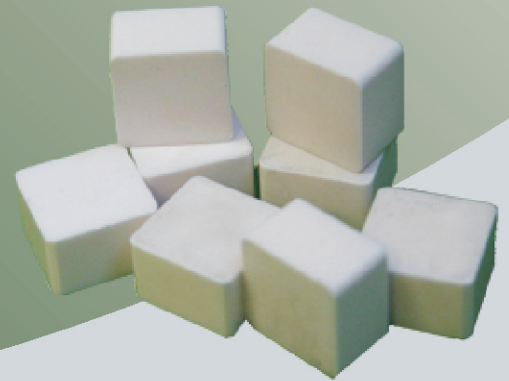
## Indexable Faceted Cutting Inserts (IFCI) based on ceramic materials

### Improved productivity of metal machining

Possibility of high-speed machining application

Processing of difficult-to-machine materials

Processing without coolant



### Oxide ceramic IFClS:

- High hardness and wear resistance
- High thermal stability
- Chemical inertness

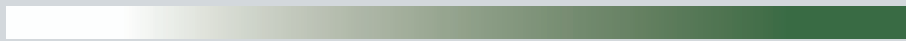


### Nitride ceramic IFClS:

- Impact toughness
- Thermal shock resistance
- High wear resistance



**Virial Ltd experts will help you to choose the best cutting tool for your specific processing target**



## Application of ceramic IFCI offers the greatest efficiency gains when machining the following materials:

### Oxide ceramics IFCIs:

- high quality advanced structural and alloyed steels with hardness up to 380 HB
- chilled cast irons with hardness up to 500 HB
- hardened steels with hardness up to 50 HRC
- hard and difficult-to-machine materials

### Nitride ceramics IFCIs:

- hard machining of grey and malleable cast irons with hardness up to 370 HB
- nickel-based super alloys
- wrought Aluminium alloys

### Generalized list of ceramic IFCIs:

Shape	ISO coding		Dimensions
Circle	RNMN	RNNN	Diameter: 12,7 - 19,05 Thickness: 4,76 - 6,35
	RCMN	RCNN	
	RPMN	RPNN	
Rhombus	CNMN	CNNN	Diameter of inscribed circle: 12,7 - 15,875 Thickness: 4,76 - 6,35 Tip radius: 0,2 - 1,2
	CCMN	CCNN	
	CPMN	CPNN	
Square	SNMN	SNNN	Diameter of inscribed circle: 12,7 - 15,875 Thickness: 4,76 - 6,35 Tip radius: 0,2 - 1,2
	SCMN	SCNN	
	SPMN	SPNN	
Triangle	TNMN	TNMN	Diameter of inscribed circle: 12,7 - 15,875 Thickness: 4,76 - 6,35 Tip radius: 0,2 - 1,2
	TCMN	TCMN	
	TPMN	TPMN	

We also offer other customized dimension types in accordance with ISO

It may be possible to produce ceramic IFCIs according to customer`s drawings

Virial Ltd experts will help you to develop special tools for your specific machining problems

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