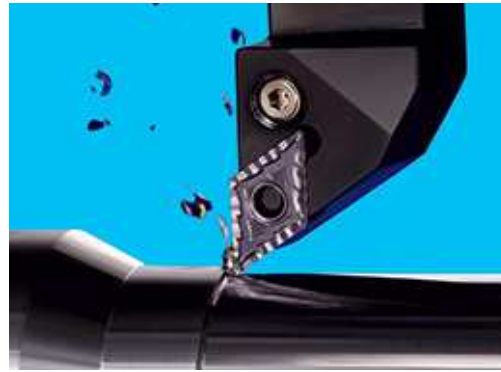


# CERMET INSERT GRADES

## CERMET



### CERMET

KYOCERA is known as the leading manufacturer of cermets. Cermet is a composite material combining Ceramic and Metal. Typical materials used in cermets are TiC, TiN, TiCN and NbC. Designed to provide long tool life and excellent surface finishes, cermets combine toughness with superior wear resistance.

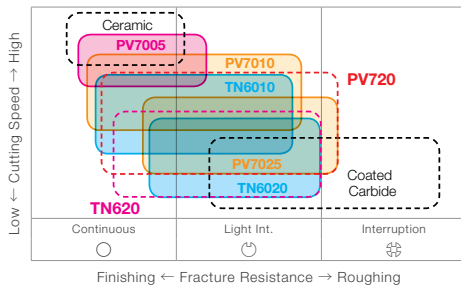
### PVD COATED CERMET

PVD Coated Cermet is coated on cermet substrate with a thin layer of high wear resistance and high adhesion resistance by PVD (Physical Vapor Deposition) technology. Generally because of the low processing temperature of PVD compared with CVD, PVD Coated Cermet features less deterioration and more bending strength.

### FEATURES OF CERMET & PVD COATED CERMET

Material	Description	Color	Main Component (Coating Composition)	Advantages
P Steel	Cermet	TN620	TiCN	<ul style="list-style-type: none"> <li>Inner structure has high toughness and chipping resistance along with thermal shock resistance.</li> <li>Application: Recommended cermet for stable steel machining and high quality surface finish</li> </ul>
		TN6010 (Super Micro-Grain)	TiCN	<ul style="list-style-type: none"> <li>Improved surface cermet with superior wear resistance and toughness</li> <li>Application: Economical uncoated cermet for steel</li> </ul>
		TN60	TiCN+NbC	<ul style="list-style-type: none"> <li>Typical choice cermet with superior wear resistance and toughness</li> <li>Application: Cutting of steel and stainless steel</li> </ul>
		TN6020 (Super Micro-Grain)	TiCN	<ul style="list-style-type: none"> <li>Super micro-grain cermet with superior wear resistance and toughness</li> <li>Application: First choice cermet for steel and stainless steel cutting</li> </ul>
		TN100M	TiCN+NbC	<ul style="list-style-type: none"> <li>Tough cermet with improved oxidation resistance and thermal shock resistance</li> <li>Application: Milling of steel at high speed</li> </ul>
		TC40	TiC+TiN	<ul style="list-style-type: none"> <li>Good balance of wear resistance and toughness</li> <li>Application: Grooving and threading of steel</li> </ul>
K Cast Iron	PVD	PV720	TiCN (MEGACOAT NANO)	<ul style="list-style-type: none"> <li>MEGACOAT NANO efficient machining with high quality surface finishes and superior wear and adhesion resistance.</li> <li>Application: Recommended cermet for stable steel machining and high quality surface finish</li> </ul>
		PV7010 (Super Micro-Grain)	TiCN (MEGACOAT)	<ul style="list-style-type: none"> <li>Heat-resistant MEGACOAT on improved surface cermet with excellent wear resistance and toughness</li> <li>Application: Stable and improved tool life in steel cutting, excellent surface finish</li> </ul>
		PV7025 (Super Micro-Grain)	TiCN (MEGACOAT)	<ul style="list-style-type: none"> <li>MEGACOAT on the super micro-grain cermet</li> <li>Application: High strength and long life given by MEGACOAT.</li> </ul>
		PV7040	TiC+TiN (MEGACOAT)	<ul style="list-style-type: none"> <li>MEGACOAT on the super micro-grain cermet</li> <li>Application: High strength and long life given by MEGACOAT.</li> </ul>
		PV7005	TiC+TiN (MEGACOAT)	<ul style="list-style-type: none"> <li>Heat-resistant MEGACOAT on cermet with excellent wear resistance</li> <li>Application: High speed finishing of gray and nodular cast iron</li> </ul>

### Application Map



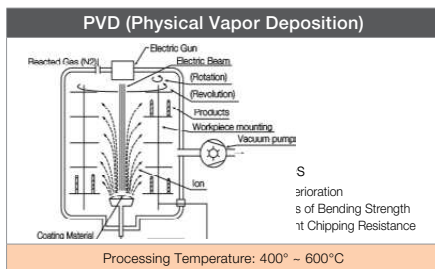
### PV-Series (MEGACOAT / MEGACOAT NANO)

PV720: MEGACOAT NANO for Steel  
PV7010: MEGACOAT for Steel

### TN-Series (Uncoated Cermet)

TN620: Uncoated Cermet for Steel  
TN6010: Uncoated Cermet for Steel

### PVD (Coating)



### PVD (Properties)

