

NEW TURNING GRADES FOR CAST IRON AND CAST STAINLESS STEEL

Mitsubishi Materials has expanded its comprehensive range of premium insert grades for turning. BC5110 is a specially coated CBN specifically for machining grey cast irons such as GG25 and GG30. Whereas the MH515 grade is a CVD coated carbide grade designed for cast austenitic stainless steels as well as ductile cast iron.

The new BC5110 delivers a variety of performance and benefits by drawing on the vast R&D work built up over years of producing other high performance CBN grades. This work has created a composition of a fine grain, high CBN content substrate that greatly improves chipping resistance. This results in process reliability and longer tool life. Meanwhile, the hard ceramic coating layer adds to the user benefits by providing wear and notching resistance to help machine excellent component surface finishes.

In addition to a wide selections of both positive and negative geometry inserts for BC5110, two different edge honing types, the FS and GS, are available to help machine programmers and tooling engineers select the ideal insert for their application. The FS honing has a sharp edge for reduction of burrs and displays excellent resistance to flank wear. The GS type is suited to thin or low rigidity components and is resistant to edge chipping.

The innovative new carbide grade MH515 has been specially designed to meet a niche range of applications. An advanced coating ensures improved peeling resistance and edge life for machining cast austenitic stainless steels and ductile cast materials typically found in turbocharger housings. The key to the jump in

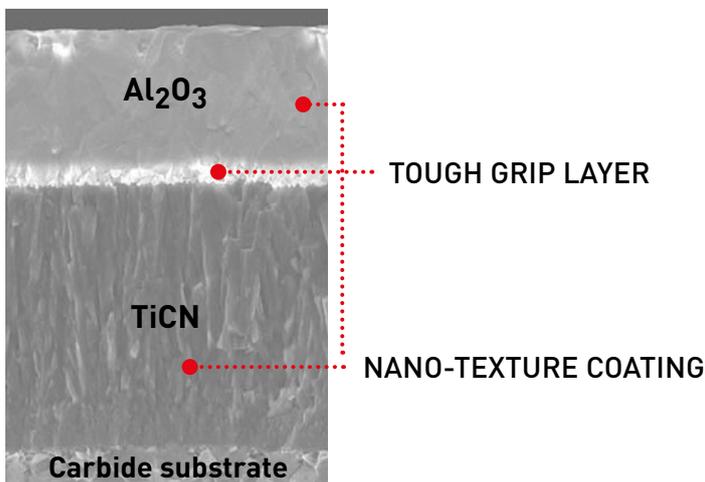


MH515

performance and reliability comes via the Tough Grip technology that maximises the binding between the coating layers. A top layer of Al_2O_3 and a lower TiCN layer that displays advanced levels of adhesion to the carbide substrate, in combination with optimised crystal growth Nano-texture technology works together to provide a tough cutting edge. This toughness is necessary to deal with the difficult conditions of cast turbocharger housings and in addition provides outstanding wear and chipping resistance to bring process reliability and more parts machined per edge.

MH515 inserts are available in negative and positive geometries with 4 different chipbreakers, LK for light machining, MA and GK for medium cutting and RK rough machining.

COATING FEATURES OF MH515



BC5110

