

Drill Coating

DEX Coating



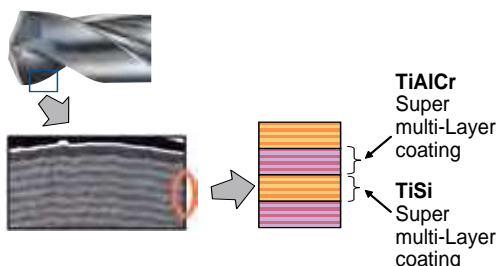
General Features

- Sumitomo Electric Hardmetal's next-generation drill coating utilises nano-coating technology to provide more than double the tool life of conventional coatings.
- Silicon and chrome improve usure, heat, and adhesion resistance.
- New super multi-layered structure offers significantly improved chip resistance (coating strength).

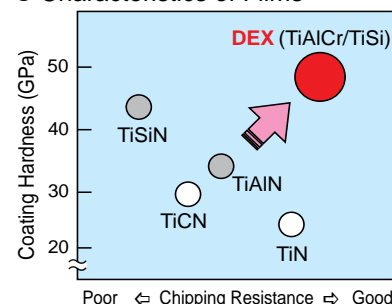
Characteristics

Coating Design

World's first combined super multi-layered coating is made from alternate layers of super multilayered substrates.



Characteristics of Films



DEX Coat Application Examples

MultiDrill GS Type Drilling Examples

Comparison of Usure Resistance		Comparison of Adhesion Resistance	
Edge Usure Comparison for 70m Drilling		Edge Usure Comparison for 100m Drilling	
Shoulder and rake face feature improved usure resistance enabling long tool life.		Offers significantly improved fracture resistance to counter problems caused by shoulder and flute adhesion in soft steel drilling.	
DEX Coating MultiDrill GS Type		DEX Coating MultiDrill GS Type	
Concurrent A Drill		Competitor B Drill	
GS Type MultiDrill with DEX Coating		GS Type MultiDrill with DEX Coating	
Company A's drill		Company A's drill	
Tool: MDW 0800 GS4		Tool: MDW 0600 GS4	
Work Material: C50 (HB200)		Work Material: 15CrMo5 (HB120)	
Cutting Conditions: v _c =70m/min, f=0,25mm/rev, d _{oc} =32mm		Cutting Conditions: v _c =60m/min, f=0,18mm/rev, d _{oc} =18mm	
External coolant (Water soluble)		External coolant (Water soluble)	

Long MultiDrill XHT Type Drilling Examples

Reduced margin usure during deep hole MQL drilling increases number of regrinds.	
DEX Coating	
Conventional Coating	
Tool: MDW 0497 XHT20 (ø4,97 L/D=29)	
Work Material: 42CrMo4 (HB275) Crank Shaft	
Cutting Conditions: v _c =70m/min, f=0,23mm/rev, d _{oc} =75mm	
MQL	

MultiDrill SMD Type Drilling Examples

Offers longer tool life with SEC MultiDrills as well.	
Tool: SMDH 210 M (ø21,0)	
Work Material: 36Mn5 (HB350) Construction Mashine Component	
Cutting Conditions: v _c =60m/min, f=0,25mm/rev, d _{oc} =25mm	
Water soluble Coolant	