

The logo for ILJIN Diamond, featuring the word "ILJIN" in white on a blue square background, followed by the word "Diamond" in a dark grey sans-serif font.

ILJIN Diamond

PCD

Polycrystalline Diamond

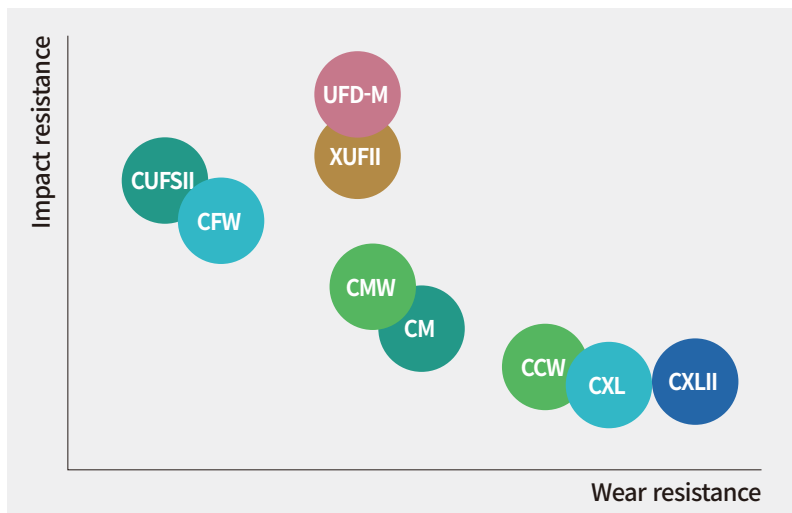


IPOL

ILJIN Polycrystalline Diamond

	Grade	Grain Size	Property
Coarse	CXLII	40 μ m	Specially designed for superior wear resistance, bi-modal structure
	CXL	25 μ m	Excellent wear resistance with strong diamond bonding. General purposes for high Si% Al alloy composite, bi-modal structure
	CCW	25 μ m	Good wear resistance with special binder and diamond bonding
Medium	CM	10 μ m	General purposes for Al and Al-Si alloy
	CMW	10 μ m	General purpose, easy wire cutting and good impact resistance
Fine	CFW	4 μ m	Good surface finishing
	CUFSII	2 μ m	Good surface finishing
	XUFII	< 1 μ m	Excellent impact resistance and easier tool fabrication
	UFD-M	< 1 μ m	Ultra fine diamond for high performance for Al-alloy milling application

75pi diameter disc available in CM, CMW, CXL



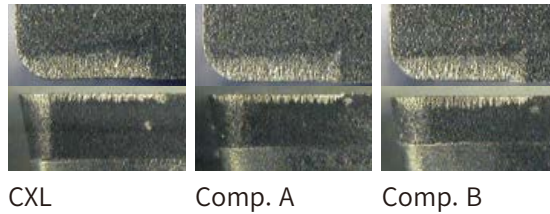
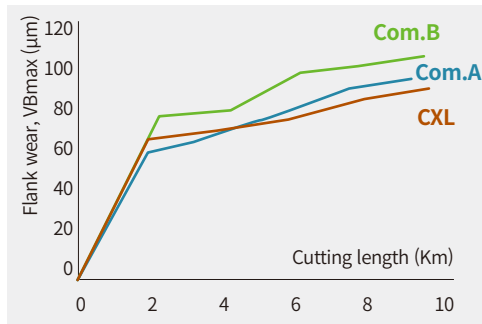
Performance Test

CXL

Al alloy

Continuous turning

Material	DURALCAN (Al-20%SiC)
Speed	500m/min
D.O.C	0.5mm
Feed	0.2mm/rev
Coolant	Dry
Insert type	SPGN090304
Holder type	CSDPN2525-M12



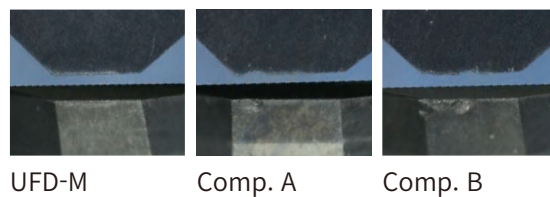
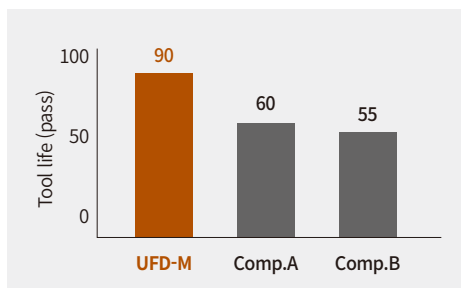
Performance Test

UFD-M

Al alloy

Milling

Material	Al-Alloy ADC12
Speed	1,000m/min
D.O.C	0.5mm
Feed	0.15mm/rev
Coolant	Wet
Insert type	SPEN120308



Application guideline

General purpose	Special purpose	Wear resistance	Fine surface
Al-Si alloy (9-12%) Woodworking Cu alloy	Al-Si alloy face milling CFRP	Al-Si alloy (>12%) Ceramic (sintered/unsintered) Tungsten carbide Laminated floor Designed to offer excellent tool life	Woodworking Cu alloy Rubber Acrylglass Designed to offer better surface roughness
CXLII	CXLII	CXLII	CXLII
CXL	CXL	CXL	CXL
CCW	CCW	CCW	CCW
CM	CM	CM	CM
CMW	CMW	CMW	CMW
CFW	CFW	CFW	CFW
CUFSII	CUFSII	CUFSII	CUFSII
UFD-M	UFD-M	UFD-M	UFD-M