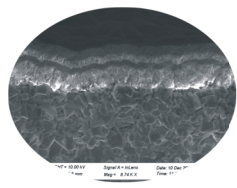


COMPOSITE HIGH-EFFICIENCY PROCESSING COATING

HFR410

HuaSheng® HGR410 Coating Analyse



HuaSheng® HGR410

Application

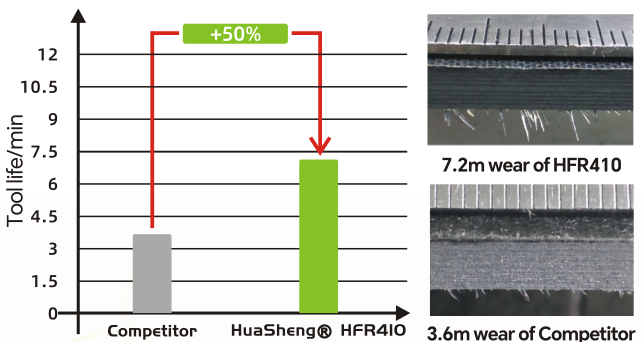
- High-conductivity plate processing
- Composite material processing
- Carbon fiber processing

Coating material	C
Coating colour	Glossy black
Coating thickness (µm)	10±2
Coating hardness HIT (GPa)	80-100
COF	0.2
Coating temperature (°C)	>500
Oxidation resistance temperature (°C)	650

Coating structure	Coating performance
Adjust the gas composition and optimize the coarse crystal orientation	Achieve high-quality crystalline diamond with superior wear resistance and better bonding performance
Optimize the thickness ratio of multi-layer coarse and fine grain films	Enhance impact resistance and extend service life in composite material processing

Application of HuaSheng® Diamond Grades

Case 1: 4mm T800 carbon fiber board



Tool Specifications: 6×18×60LxD6

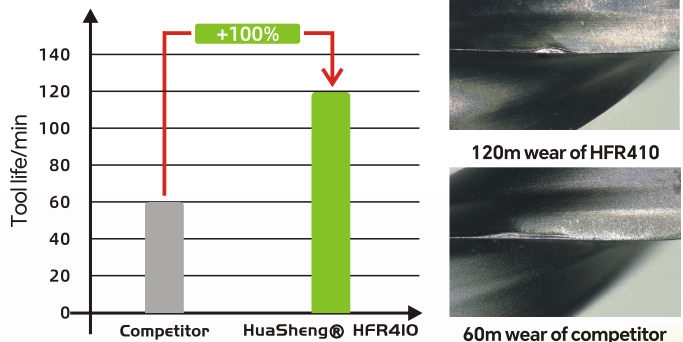
Workpiece: 4mm T800 carbon fiber board

Test condition: climb milling
 Cutting speed Vc = 150 m/min Cutting depth ae = 3 mm
 Feed rate F = 0.6 m/min
 Cooling method: dry milling + dust collection

Test results: Huasheng HFR410 coated tool can machine 7.2m;
 C Manufacturer X coated tool life of 3.6m;
 50% increase in cutting life

Data source: terminal tool testing center

Case 2: Aluminum-based board (3W; 70 microns copper thickness)



Tool Specifications: Ball nose mill: D1.5R0.75*8*D4*50L*2F

Workpiece material: aluminum-based board (3W; 70 microns copper thickness)

Test conditions: blind hole drilling Feed rate F = 0.96 m/min
 Cutting speed Vc = 264 m/min Cutting depth ae = 4.8 mm
 Cooling method: air cooling

Test results: Huasheng HFR410 coated tool can machine 120m;
 competitor coated tool life of 60m;
 100% increase in cutting life

Data source: Huasheng cutting laboratory



Guangdong Huasheng Nanotechnology Co., Ltd
 Headquarters address: No.36 Lianhuan Road, Dalingshan, Dongguan
 Production address: No.2 Mashanmiao Road, Dalingshan, Dongguan
 TEL: +86 85658819-8036

Keneng R&D Center
 Abao Industrial Center

