STELLA COAT

Core pin manufacturer and surface treatment professionals have jointly developed coating for core pins

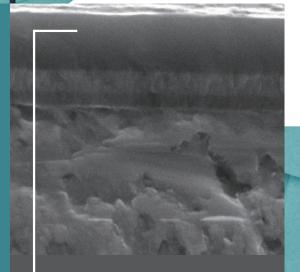
"Stella" composed of five elements significantly reduces mold maintenance

Features of Stella Coat

-AICrTiSiN-based nano composite multilayer coating -3-layer coating

Evaluation of the coating

-Harder film than TiN, TiAIN, and CrN (Hv3000)
-Excellent resistance to aluminum sticking / erosion
-Excellent oxidation resistance (1100°C)
-Thin film with little dimensional change



Dense film structure

CASTEC celebrated its 85th anniversary in 2022. In this memorable year we released a new coating. We would like to bring out the performance of core pins and solve casting problems.

85 Anniversary





STELLA COAT

	TiN	TiAIN	CrN	STELLA COAT
Hardness(HV)	2000	2800	1800	3000

0.063

TiAIN

Al sticking test results (5-minute aluminum immersion \rightarrow Appearance of specimen after wiping and amount of sticking)

Al sticking amount (g)

0.100 -

0.075

0.050

0.025

0.000

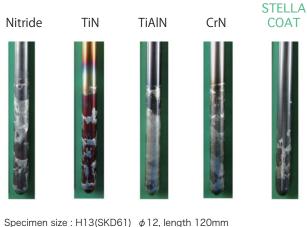
-5.000

0.089

Nitride

TiN

Surface hardness



Specimen size : H13(SKD61) ϕ 12, length 120mm Aluminum immersion range : 70mm from tip

Erosion test results (9-hour aluminum immersion → Appearance of specimen after removal and amount of erosion)



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Excellent against seizure, erosion, and heat check resistance

STELLA Nitride TiN TiAIN CrN COAT 0.000 -0.028 -0.243 -0.434 Amount of erosion (g) -1.250 -2.500 -3.750 .170 Molten metal ADC12 4.689 Temperature 700°C

Aluminum immersion range : 70mm from tip "Stella Coat NOVA" specialized for inserts is available now!

CASTEC CORP.

Specimen size : H13(SKD61) ϕ 12, length 120mm



Molten metal ADC12

Temperature 700°C

STELLA COAT

0.063

CrN

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