



CFRP Rod coated with Metal

Negative features of **CFRP Rod** to replace metals

Since polymer resin is exposed to the surface, CFRP rod has insufficient hardness and low machining accuracy.

Poor resistance against oil and chemicals compared to metals.

Metal Plating on CFRP surface (Ni,Cu,Hard-Cr) Patent pending

Enhanced surface hardness, Vickers Hardness 750 over

Dimensional accuracy with same level as metals (Surface roughness, Circularity, Cylindricity)

Machined tolerance improved from $\phi \pm 0.05$ without plating to $\phi \pm 0.005$ (max) with plating

Suitable for precision mechanical part

Improved oil resistance and chemical resistance

Comparison(Shape: $\Phi 16 \times \Phi 10 \times L200$ mm)

Product	Metal Rod	CFRP Rod coated with Metal
Matrix	SUJ2	CFRP
Surface material	HCr	HCr
Surface hardness (Hv)	750 over	750 over
Surface roughness	Ra0.4	Ra0.4
Weight (g)	191	55

Application

Air-bearing cylinder rod



Coated with Metal

CFRP

Conventional Metal



Linear Motion Unit

FUJIKURA COMPOSITES Inc.

6-12-8 Ueno, Iwatsuki-ku, Saitama-shi,
Saitama 339-8510, Japan
TEL +81-48-794-2940
E-mail kaihatu@fc.fujikura.co.jp