

DURMAT® 107 WC/W₂C - Fused Tungsten Carbide

fused and crushed
EN 1274— 11.3 — *)

Application:

Fused Tungsten Carbide is a eutectic melting blend of WC/W₂C in which the W₂C crystals are inserted in a lamellar feather structure. These crystals have a micro hardness of HV_{0.4} ≥ 2300 in a matrix of HV_{0.4} ≥ 1900. The structure is achieved by a special fusing and crushing process. The powder is known under the commercial term FTC (Fused Tungsten Carbide).

FTC is easy to spray and fuse in blends with binder systems like Ni-base-alloys. Coatings are resistant to erosion, wear and abrasion and are used in mining and earth-moving equipment's. Typical parts are deep well drilling outfits or diamond tools.

Chemical Composition (in wt-%):

W	C	C free	Fe	Co
balance	3.7 - 4.2	≤ 0.1	≤ 0.3	≤ 0.3

Phase Structure: (WC)_{0.45 - 0.1} • (W₂C)_{0.55 + 0.1}

Physical Characteristics:

Density: 16 - 17 g/cm³

Particle Size Range in μm *):
22/5
38/15
53/22

Particle Shape: irregular

*) According to EN 1274 3.3 or as per individual customer specification.

***) Dependent from designated size.