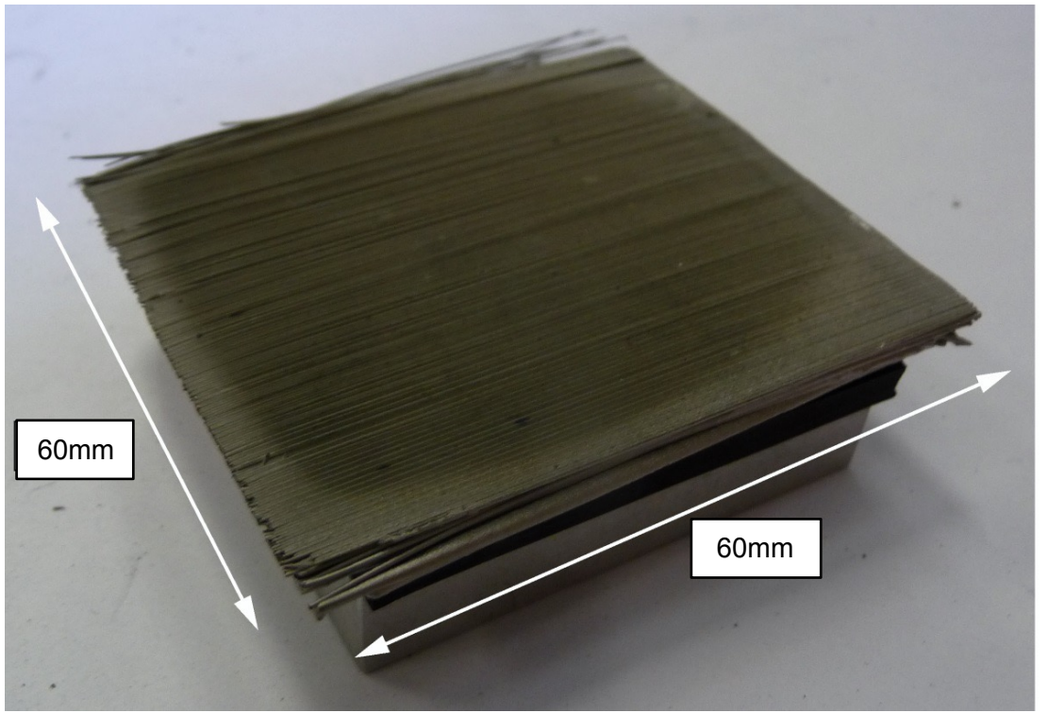
Wf/W Production

- d= 40 mm,h=5 mm, 121 g
- Production from
  - 5 µm powder (OSRAM)
  - **30% short fibres (150 µmx1.5 mm)**
- Density: 94 – 95 %
- Random Fibre Orientation
- FAST Route: 60 MPa / 1900˚C (4min)

CVD Layered Deposition



- 50 x 50 x **3.5-4** mm³, 194 g
- 10 Layers a 220 fibres,
- **unidirectional long fibres**
- fibre volume fraction 21%
- Density: 93 – 98 % depending on location, 94.2 % overall density (Archimedes)
- Pore free growing possible

Step 1: put single fibre layer on heat plate

Step 2: deposit 100µm of tungsten on that layer with a CVD process

Step 3: opening of the system replace frame and put next frame ontop of ingrown fibers