



NON-SINTERED SOFT MAGNETICS COMPONENTS

SMC materials

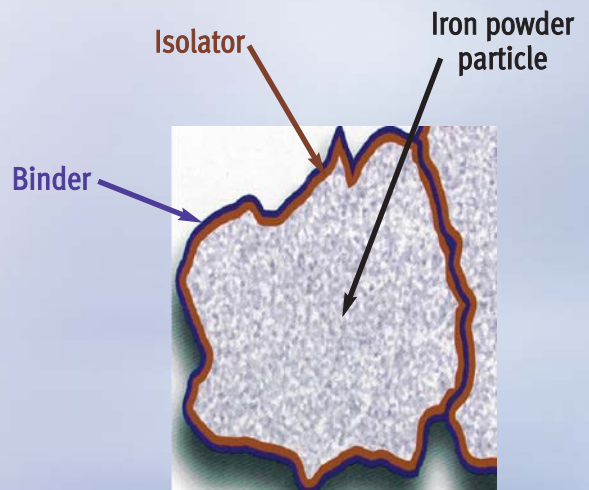


Material description:

In the manufacture of non-sintered SMC-Components, iron powder is coated with chemical agents which allow bonding the powder particles to each other during a low-temperature curing process while maintaining electrical insulation.



Smoothing coil



Properties / Advantages:

- significantly reduced eddy current losses
- excellent magnetic properties in the frequency range of 50 Hz ~ 15 KHz
- 3D-design possible: isotropic magnetic properties
- smaller package and lower weight in electric motor design

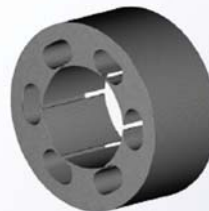
Applications in Softmagnetics



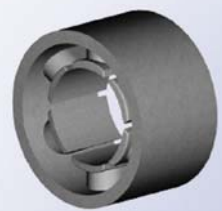
SMC universal motor for white goods:
conventional universal motor made of stampings (left), SMC motor (right)



Sample: stator



conventional



SMC - design

Ignition coil:

- high energy density and ignition voltage
- the 3D-design of the core optimizes the magnetic flux