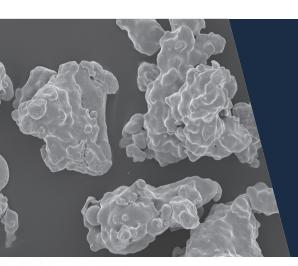
# **ANCORSTEEL 50 HP**



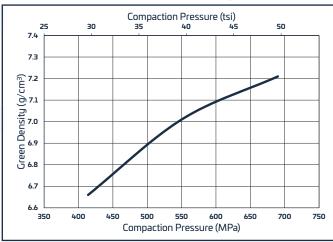
This is a water-atomized, prealloyed, low-alloy steel powder for high performance applications. The prealloyed 0.50 weight % molybdenum addition results in high compressibility and provides good response to heat treatment. Ancorsteel 50 HP is an ideal base powder for a wide range of copper, nickel, chromium, and manganese hybrid alloy systems. This material conforms to MPIF standard 35 for FL-400X.

### www.gknpm.com

| Nominal Chemisty (weight %) |           |            |  |  |
|-----------------------------|-----------|------------|--|--|
| Iron                        | Manganese | Molybdenum |  |  |
| Bal.                        | 0.15      | 0.50       |  |  |

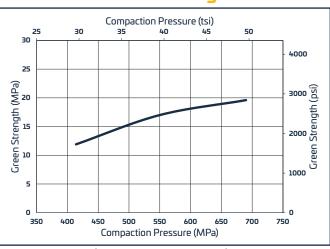
| Typical Particle Size (weight %) |       |            |             |        |  |
|----------------------------------|-------|------------|-------------|--------|--|
| Micrometers                      | +250  | -250/+150  | -150/+45    | -45    |  |
| U.S. Standard Mesh               | (+60) | (-60/+100) | (-100/+325) | (-325) |  |
|                                  | Trace | 10         | 70          | 20     |  |

## **Green Density**



(with 0.75 wt% EBS)

## **Green Strength**



(with 0.75 wt% EBS)

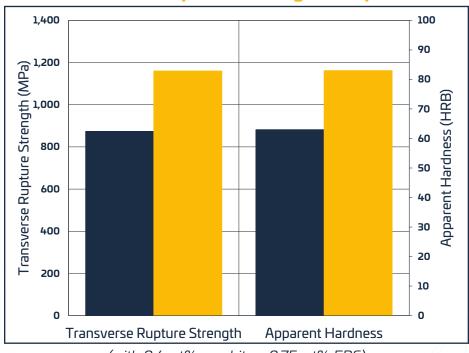
#### © GKN Powder Metallurgy

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# **ANCORSTEEL 50 HP**

## **Transverse Rupture Strength Properties**

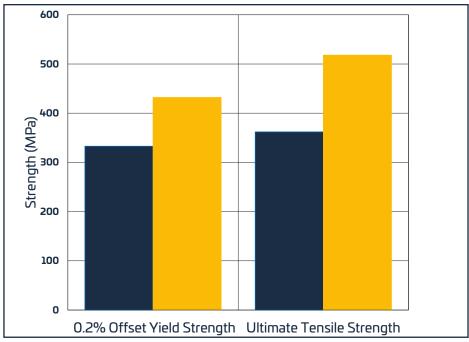


(with 0.6 wt% graphite + 0.75 wt% EBS)

50 HP + 2% Nickel

50 HP

## **Tensile Properties**



(with 0.6 wt% graphite + 0.75 wt% EBS)

All test specimens were compacted to 7.0 g/cm<sup>3</sup> and sintered at 1120 °C (2050 °F) in  $90N_2$ -10H<sub>2</sub> atmosphere with conventional cooling.

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