

Microcrystalline Cellulose (MCC)

Microcrystalline Cellulose/Avicel PH 101

- Particle Size: Small (around 50 µm).
- Properties: The original, standard grade of microcrystalline cellulose (MCC) with good compressibility and adhesion.
- Applications: Widely used for wet granulation and intra-granular applications.

Microcrystalline Cellulose NF 102

- Particle Size: Larger than PH-101 (around 100 µm).
- Properties: A partially agglomerated product with slightly better flowability and lower bulk density compared to PH-101.
- Applications: Excellent for direct compression and can be mixed with other grades to achieve specific characteristics.

Microcrystalline Cellulose/Avicel PH 105

- Particle Size: The smallest particle size (around 25 µm).
- Properties: The most compressible of the Avicel PH family.
- Applications: Used in small quantities (5-10%) with other grades to increase the tensile strength and compressibility of tablets. By far the most common type for making capsules.

In Summary

- PH 101: Original, standard-sized particles, good compressibility, ideal for wet granulation.
- PH 102: Larger, more free-flowing particles, suitable for direct compression.
- PH 105: Smallest particles, offering the highest compressibility and strength enhancement. Most common type for making capsules.

The main difference between MCC types is particle size. 105 is by far the most common version for making capsules. The other sizes could be selected due to larger particle size and ease of working with due to that larger size.