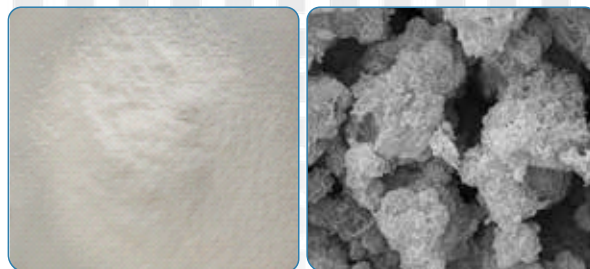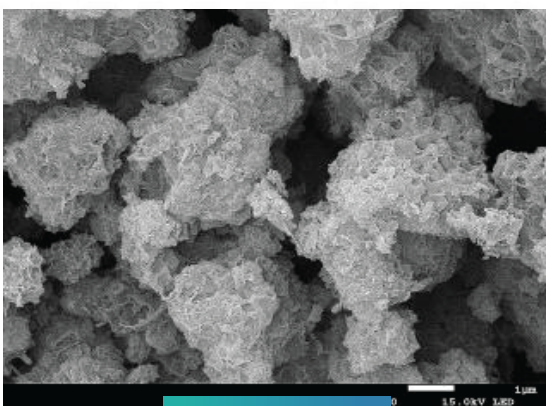# Calcium Silicate Hydrate

Name: Calcium Silicate Hydrate

Application: Friction industry
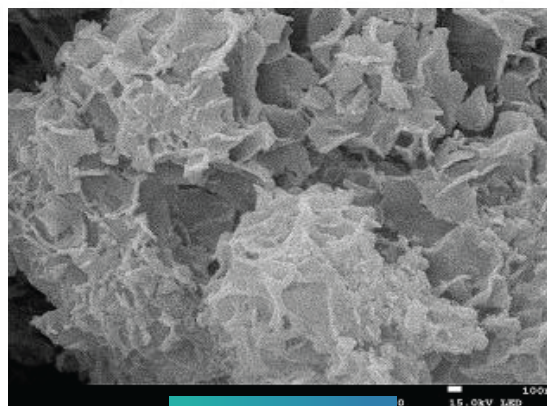
Data Sheet

Item No	Chemical Composition	Appearance	Micro-morphology	Whiteness (%)	Loose Density (g/cm³)	Moisture Content (%)	PH	Mohs Hardness	Particle Size D50
NP-CSH-10	Ca5Si6O16 (OH)2·4H2O	White Powder	Porous Spherical	≥90	0.1-0.2	≤3	9-12	6-7	5-20μm

SEM 1μm

SEM 100nm

Product advantage

High porosity

Calcium Silicate Hydrate has a high porosity. Scanning electron microscopic shows that is High porosity. The dense pores can effectively isolate and interfere with the propagation of sound waves, thus providing excellent noise reduction performance. High porosity is conducive to the release of gases generated during the preparation and use of the composite material system. It can increase the compression ratio of the composite material and reduce the overall hardness of the material. lt can be used in brake pads to improve braking comfort.

Low wear rate

Silicate materials have strong wear resistance and can effectively solve the problem of high wear rate of composite materials.

Alkaline materials

The PH value is 11. It provides an alkaine environment for the composite material system, helps prevent corrosion and protects the composite material.

Price advantage

NP WHISKER develops Calcium Silicate hydate independently. so It has a price advantage over similar market products; the high porosity improves the volume ratio of friction materials.
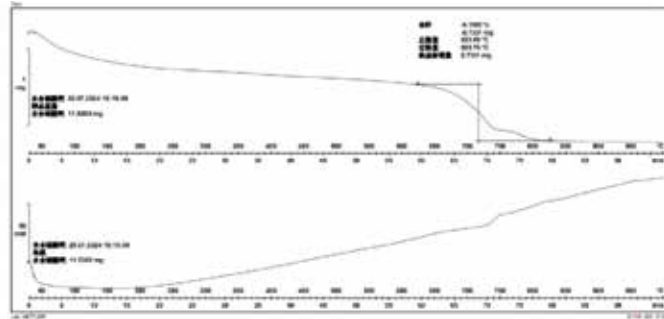
Application：

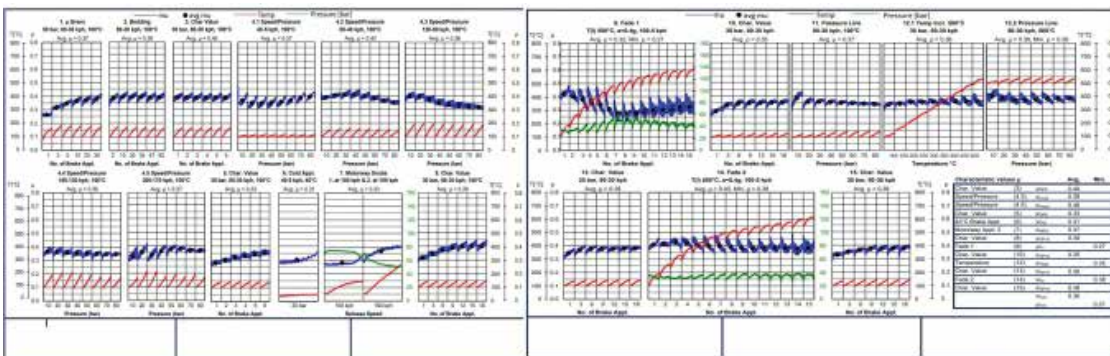Brake pads, linings, clutches, etc.

Calcium Silicate Hydrate

Dosage:

3-6% weight ratio

TGA&DSC

Brake pad performance test-SAE J2522 with competitive product

Brake pad noise test-SAE J2521 with competitive product