Characteristics of CNF

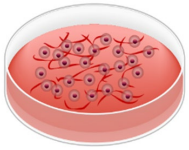
High-Purity, Biocompatible Nanocellulose

DERMAGLUE® Technology Overview

1. Functional and Biocompatible Scaffold

Scaffolds are used in various fields, including regenerative medicine, artificial organs, and cultured meat. Conventional scaffolds have primarily been studied to increase cell growth rates. More recently, however, there has been increasing demand for scaffolds with special functions such as biocompatibility, inflammation suppression, and edibleness.

Due to their uniform porous structure, scaffolds based on nanocellulose can perform a role similar to cellular capillaries, maintain a stable shape, and allow the biodegradation rate to be adjusted according to the material combination.



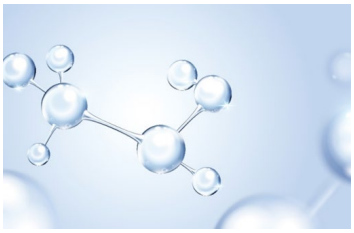
2. Nanocellulose-Based Medical Biomaterials

Using high-purity, biocompatible cellulose, Dermaglue is developing innovative medical biomaterials designed to be more effective than existing materials. These applications range from medical devices such as hemostatic dressings and wound dressings to drug delivery systems (DDS).

The hemostatic nanocellulose used in the Tissue Adhesive demonstrates improved hemostatic efficacy compared with chitosan products, even when used in small amounts, and offers strong competitiveness due to its excellent biological safety.

In addition, Dermaglue is developing innovative medical biomaterials using high-purity, biocompatible cellulose to enhance the performance of wound dressings and drug delivery systems.





3. High-Purity, Biocompatible Nanocellulose

DERMAGLUE has developed a skin-bonding adhesive incorporating high-quality nanocellulose. The material has passed more than five biocompatibility tests, including skin toxicity assessments, and is manufactured using a proprietary process.

This high-purity, biocompatible nanocellulose provides significant competitive advantages due to its versatility across various fields. The company has also developed high-purity bio-adhesives tailored to specific applications.

4. Key Highlights

Category	Key Highlights
Functional Scaffold	Applications include regenerative medicine, artificial organs, and cultured meat.
Required Functions	Biocompatibility, inflammation suppression, edibleness, and other specialized functions.
Nanocellulose Scaffold	Uniform porous structure, stable shape, and adjustable biodegradation rate depending on material combination.
Medical Biomaterials	Applications include hemostatic dressings, wound dressings, and drug delivery systems (DDS).
Hemostatic Nanocellulose	Improved hemostatic efficacy compared with chitosan products, even in small amounts, with excellent biological safety.
DERMAGLUE® Skin-Bonding Adhesive	Skin adhesive incorporating high-quality nanocellulose.
Biocompatibility	Passed more than five biocompatibility tests, including skin toxicity assessments.
Technology & Competitiveness	High-purity, biocompatible nanocellulose manufactured using a proprietary process, with versatility across various fields.