

FR CORONA™

— Viscose Rayon Fiber —

**Barrier that retains its structure even
in flames of 1000°C**

Benefit
1

FR CORONA is a **uniquely processed flameproof material made by adding inorganic substances** to viscose rayon fiber.

Benefit
2

FR CORONA **is a barrier against fire** and excessive heat because the inorganic materials **in the fiber retains their structure in fires.**

Benefit
3

FR CORONA is halogen and phosphorus free **for safety reasons.** Therefore, **it generates less smoke and toxic gas in fires.**

Daiwabo Rayon Co., Ltd.

11F Midosuji Daiwa Bldg. 6-8, Kyutaromachi 3-chome, Chuo-ku, Osaka City 541-0056
Mail: dr-kanri@daiwaborayon.co.jp Fax: +81-6-7635-3291

<https://daiwaborayon.co.jp/english/>

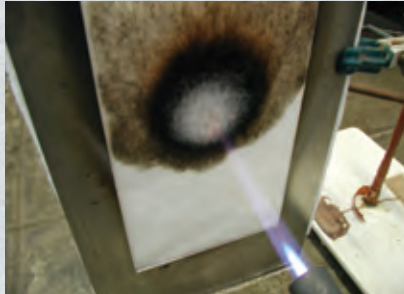


Even in flames hot enough to cause a hole, the inorganic material in the fiber retains its structure, providing a barrier against fire and excessive heat.

Fireproof test

Heat the nonwoven fabric with a burner

The contact area of the flame is about 1000°C.



After heating for 20 minutes

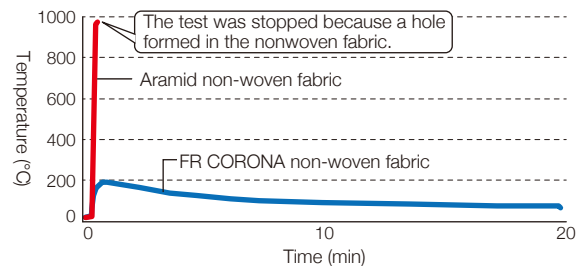
The inorganic material in the fiber retains its structure, so no holes are formed.

[Temperature transfer to the back of the nonwoven fabric]

When the same test was performed using aramid non-woven fabric, holes formed instantly (Refer to graph). In the case of FR CORONA, the inorganic material in the fiber retains its structure and does not cause holes, making it difficult for heat to transfer to the back side.

Test method (Our method): The surface of the nonwoven fabric was set in a predetermined frame (25cm × 15cm) and heated with a burner. The condition of the surface of the nonwoven fabric was checked, and the temperature of the back side of the nonwoven fabric was measured with a thermometer over time.

Test site: Our laboratory
 Fabric blend: FR CORONA 70% / Binder fiber 30%
 Weight: 275 gsm
 Thickness: 15 mm (High loft nonwoven fabric)



Typical Application of FR CORONA

Bed mattress application (Comply with CFR1633)

FR CORONA is recognized in the United States as an indispensable material for fireproofing bed mattresses.

CFR1633 — Flammability standards for mattress sets (Open flames)

In the U.S., there is a set of flameproof performance requirements that all mattress sets must meet before they can be commercialized. The purpose of this regulation is to reduce the number of fatalities and injuries caused by mattress fires. The maximum heating rate and total heating value must not exceed set values during a 30-minute combustion test of the mattress.

Mattress without FR CORONA



Mattress made fireproof by FR CORONA



[Handling and cautions]

•Reconfirm the performance, if using 100% FR CORONA or mixing with other materials. •It does not assure to protect the body from burn, etc. •Use the product only after understanding the intended use, conditions, and environment. •Store indoors at 40°C or below, out of direct sunlight. There is a possibility of discoloration. •Do not use fire or strong oxidizing agents in the vicinity of the storage area. •Do not handle the product in areas where exhaust gases (NOx, SOx, etc.) are generated. There is a possibility of discoloration.