

Formaldehyde Scavenger/ Liquid type **DEERMUSHYU FC-7 series**

DEERMUSHYU FC-7 series is a formaldehyde scavenger developed by OSHIKA Corporation and designed to reduce formaldehyde emission from wooden materials simply by coating.

Best Solution to;

- approach low formaldehyde emission
- comply with emission regulations
- contribute to people's health



Formaldehyde scavenger coating by spray



Fast, High, Long-lasting effect

The chemical properties of FC-7 series provide a stable effect over a long period of time. It controls emission for at least 3 years.



Safe

FC-7 series does not contain VOC substances* and carcinogenic substance.

*comply with the guideline of Ministry of Health, Labour and Welfare, Japan



Trust

FC-7 series have been used and trusted in Japan and Indonesia for over 10 years and has answered the demands of wood board manufacturers to meet Japan's strict emission regulations.



Easy to coat

FC-7 series can be applied with a standard spray or roll coater. Selecting the appropriate method according to the product to be coated will maximize performance.

Area of Application

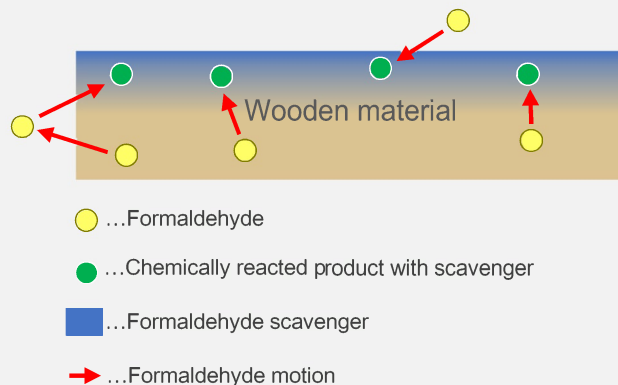
- ▶ Plywood
- ▶ Particle Board
- ▶ Medium-density Fiberboard (MDF)

How DEERMUSHYU FC-7 series works

- ▶ Formaldehyde penetrates into wooden material and formaldehyde under coated surface reacts with FC-7 series
- ▶ Formaldehyde that comes out from the wood react with FC-7 series on the coated surface

(Image) FC-7 series technology

Chemically stable bonds provide fast, efficient, long-term emission control

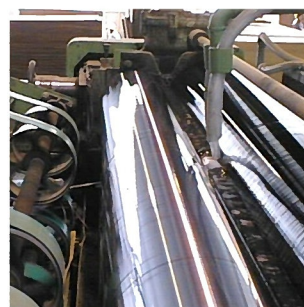


How to apply

- ▶ Product can be coated by spray or roll coater
- ▶ The amount of FC-7 series applied can be adjusted according to the formaldehyde emission before application and the target emission
- ▶ Cure the coated material until it dries



Coating by spray (generally used this method)



Coating by roll coater

Product

Area of application	Product name	Main ingredients	Physical state
General plywood	DEERMUSHYU FC-7	Hydrazide Compounds	Liquid
Softwood plywood	DEERMUSHYU FC-7PW	Hydrazide Compounds	Liquid
General board	DEERMUSHYU FC-7EX	Hydrazide Compounds	Liquid

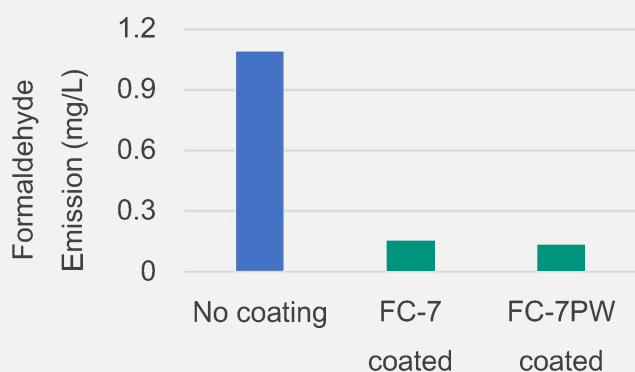
Performance

DEERMUSHYU FC-7 series can make formaldehyde emission from F☆☆☆ to F☆☆☆☆.

Standard by JAS・JIS	Formaldehyde Emission Rate		Restriction of use
	Average rate	Maximum rate	
F☆☆☆☆	Below 0.3mg/L	Below 0.4mg/L	No restriction
F☆☆☆	Below 0.5mg/L	Below 0.7mg/L	Restriction of use area
F☆☆	Below 1.5mg/L	Below 2.1mg/L	Restriction of use area
F☆	Below 5.0mg/L	Below 7.0mg/L	No use

Test Data

Plywood

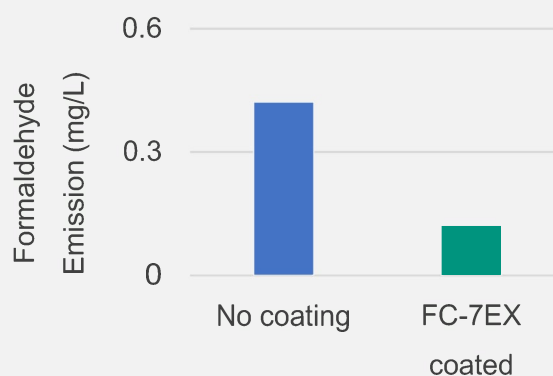


Material: 3mm yellow lauan plywood

Coating amount: 22g/m² (coated on single side)

*Emission rate was tested in accordance with JAS glass desiccator method

MDF



Material: 12mm MDF

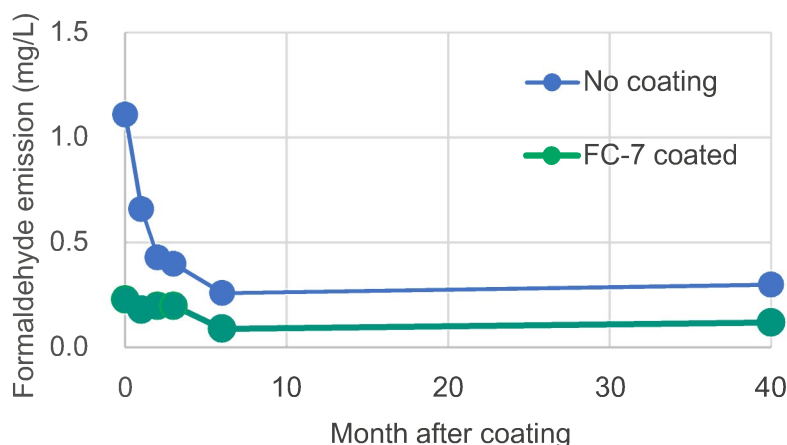
Coating amount: 22g+22g/m² (coated on double side)

*Emission rate was tested in accordance with JIS A 1460 glass desiccator method

Long-lasting effect

DEERMUSHYU FC-7 series;

- has stable effect for 40 months
- do not re-emits adsorbed formaldehyde in a normal condition



Comparison with Urea as a formaldehyde scavenger

High effect

Compared to urea, the FC-7 series significantly reduces emissions (as shown on the table below).

This technology has enabled the FC-7 series to meet one of the most stringent emission standards in the world in Japanese market.

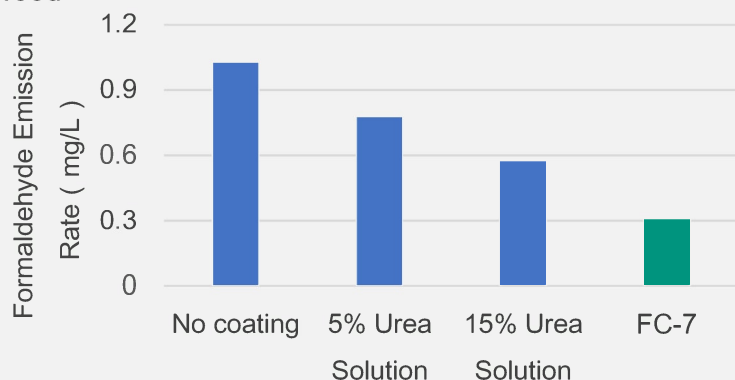
Less re-emission

Formaldehyde is often a problem because of its release over time.

Unlike urea, which temporarily reduces emission, FC-7 series is designed to keep formaldehyde from releasing once adsorbed.

Test Data

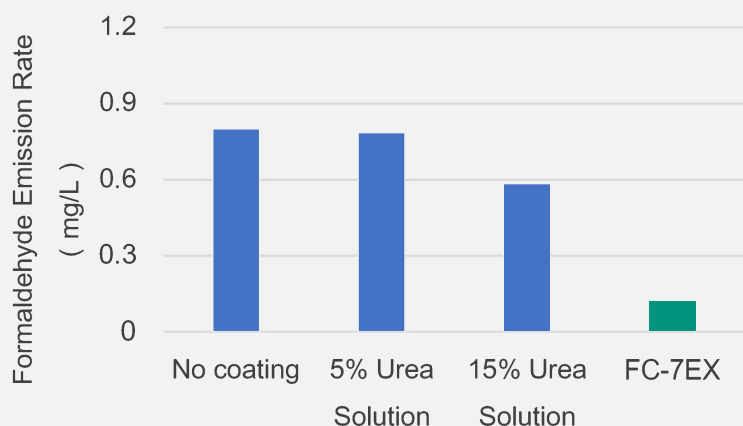
Plywood



Material: 3mm calophylum plywood
Coating amount: 22g/m²
(coated on single side)

*Emission rate was tested in accordance with JAS glass desiccator method

Particle Board



Material: 15mm Particle Board
Coating amount: 33g+33g/m²
(coated on double side)

*Emission rate was tested in accordance with JAS glass desiccator method

Reliability



Effective solution in Japan

Japan is one of the countries with the strictest formaldehyde emission regulations in the world.

One effective measure that has been proven over the years is the FC-7 series.



80% share in Indonesia

FC-7 series also has long been trusted in Indonesia, a major producer of plywood, with a share of approximately 80%* for the plywood made in Indonesia exported to Japan.



Specialist in wood materials

We are experts in adhesives and chemicals for wood and building materials.

This synergistic effect enables us to make proposals specialized in wood.



Work with customers

Our mission is to contribute to manufacturing in cooperation with our customers

We make proposals that maximize performance.

*According to the calculation referred to "Trade Statistics (plywood section)" and the sales volume of FC-7 series in Indonesia

Information

The information given in this brochure is based on our laboratory examination by a standard working condition.

The result is strongly affected by materials and working conditions. The user of this product must test the product in advance on site by the actual working conditions.

Cautions

Contact with skin may cause a rash. Please follow the precautionary statements on SDS when handling.

For more information, read technical data sheet or contact OSHIKA Corporation
(email: internationalbusinessgroup@oshika.co.jp)