

# Product Technical Manual

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TDS Number: WHOI28

Product Name: All - water - based Polyurethane Rigid Foam Spraying Composite Material for Coaches (OI28)

Version: V 3.1

## Product Introduction

OI28 is one kind of low-density spraying composite material using water as the sole blowing agent, free from other chemical blowing agents. Combined with WANNATE®2208, it produces foam products with outstanding flame-retardant properties (Oxygen Index of 28%), characterized by excellent environmental performance, low odor, and low formaldehyde content.

OI28 can be applied to the roofs and sidewalls of buses to meet thermal insulation and noise reduction requirements.

## Product Usage

OI28 for coaches is low-density, all-water spraying composite material applied for thermal insulation and noise reduction in coach interiors, and can also be used for indoor thermal insulation in buildings.

OI28 is the fast-curing system with no load-bearing capacity, making it suitable for non-load-bearing spray insulation applications, particularly in thermal insulation projects. Before use, tests must be conducted to verify the reliability of the composite material in the specific engineering application.

## Usage Precautions

If OI28 is left standing, partial precipitation of raw materials may occur, leading to stratification. It must be stirred thoroughly until the appearance returns to a white or light-yellow emulsion before application.

The construction equipment for OI28 is the high-pressure spraying machine. Prior to construction, verify and calibrate the delivery ratio of the two components and the mixing pressure of the spraying equipment.

The ambient temperature for spraying operations should be maintained between 5 °C and 40 °C, with wind speed not exceeding 5m/s (equivalent to Grade 3 wind). Outdoor construction is prohibited on rainy days. If the ambient temperature during construction falls below 5 °C, reliable technical measures must be implemented to ensure spraying quality.

During the spraying operation, control the feed temperature of two components above 40 °C, ensure that the substrate is dry and clean, and spray the insulation layer to the designed thickness in a single pass. Other relevant standards shall comply with national regulations. If the above conditions are not met, all responsibilities shall be borne by the buyer.

The construction site shall be designated as a non-fire area, maintained well-ventilated, and kept away from ignition sources. Smoking is strictly prohibited. When hot-work operations are conducted nearby, the hot-work approval system must be strictly implemented, with corresponding safety measures and specialized personnel supervision in place.

Prior to the formal construction of the project, the buyer must conduct a trial test in an environment consistent with the actual construction conditions to verify the reliability of the composite material in the specific application. Upon commencement of formal construction, it shall be deemed that the buyer has confirmed the product's performance inspection as qualified. If the above procedures are not followed, all responsibilities shall be borne by the buyer.

## **Packing Details**

200L iron drums, 200kg per drum

## **Storage (Usage) Precautions**

The composite material should be stored in closed containers to avoid absorbing moisture. Therefore, during storage and transportation, the containers must remain dry and tightly sealed.

OI28 should be sealed and stored in the low-temperature, well-ventilated, and shaded area. Avoid direct sunlight or long-term storage above 40 °C. If left standing for one week or longer,

slight stratification may occur, which is a normal physical phenomenon. This stratification can be eliminated by thorough stirring and does not affect the material's performance.

## **Expiration Date**

Under suitable storage conditions, the storage period of OI28 is 2 months. After more than 2 months, it can continue to be used upon passing qualification tests.

## **Safety Precautions**

Direct contact with OI28 may cause moderate eye irritation and mild skin irritation, potentially leading to skin allergies. Repeated inhalation of high-concentration vapors can induce respiratory allergies. Immediate medical attention should be sought, and anti-inflammatory and anti-allergic symptomatic treatment measures should be administered.

During operation, exercise caution to prevent direct contact with skin or splashing into eyes. Wear necessary protective equipment (gloves, protective goggles, work clothes, etc.).

In case of skin or eye contact, rinse immediately with clean water for at least 15 minutes. Wash the skin with soapy water and seek medical attention if necessary. If accidentally ingested, seek immediate medical treatment for symptomatic management.

## **Fire and Explosion Hazards**

This product is not classified as flammable liquids, explosives, oxidizers, corrosives, toxic substances, or radioactive hazardous materials during storage and transportation. It is not categorized as a hazardous product.

Carbon dioxide, foam, or chemical dry-powder fire extinguishers can be used. If no other fire-extinguishing agents are available, a large amount of water mist can be sprayed. Once the fire is extinguished, the spilled materials must be thoroughly cleaned (refer to the "Spill and Leakage Handling" section).

Fire-Fighting Procedure: Standard protective measures.

## **Spill and Leakage Handling**

Small amounts of leaked or spilled materials can be rinsed away with water. In case of large-scale leakage, contain and recover the materials, and wash the contaminated ground with water or detergent. The disposal of waste composite materials must comply with the



local government's environmental protection regulations.

**For more information, please refer to the Safety Data Sheet (SDS) of our products or contact our Customer Service Center.**

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The indicators and data provided in this document are based on our current level of technical knowledge and practical experience, and are for reference only. Specific guaranteed indicators are subject to the quality assurance certificate or supply contract. The user is responsible for testing the products purchased from our company to verify their suitability for their intended processes and applications, and to achieve the desired objectives. Further application and processing of our products are beyond our control. Therefore, our liability for the products provided is limited to the portion delivered by us and used by you. We do not assume responsibility for indirect losses incurred during the production process using our products as raw materials. Our technical support and customer service center are available to provide consultation and technical services related to our products. We welcome your inquiries and communication via mail or phone.

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