

Fluorescent Penetrant Flaw Detection Material

Super Glo / Eco Glo

Super Glo / Eco Glo

A product lineup perfect for a variety of uses from large-scale testing of automobile and other parts to standardized parts for aircraft
Super-Glo/Eco-Glo from MARKTEC



Super Glo

Super-Glo is standard fluorescent penetrant flaw detection material. The rich and varied lineup provides penetrants that are optimal for a wide range of applications and purposes.



Eco Glo

Eco-Glo is an ecological penetrant with main components that are safe for people and the environment. It maintains all the penetrating performance of standard penetrant while also providing improved wastewater treatment and washing performance.

Penetrates invisible flaws in various materials to detect them without fail. **Super Glo / Eco Glo** from MARKTEC ensures safety and reliability.

- We offer a range of products compatible with JIS*1 and AMS Certified (QPL AMS2644).
- Compared to conventional penetrant, Eco-Glo has superior wastewater treatment and washing performance, and is not subject to the Ordinance on Prevention of Organic Solvent Poisoning or PRTR Act.
- We can also provide ultraviolet flaw detection lights (black lights), UV light intensity testers, and other equipment necessary for fluorescent penetrant testing.

*1 JIS Z 2343-2 (compliant with ISO 3452-2)

● One Stop Solution from MARKTEC

MARKTEC provides optimal solutions for customer needs from consumables to devices and after-sales maintenance.



Customer Concern

MARKTEC Solution

1

I don't know what penetrant is the most appropriate.

We provide the optimal penetrant for any flaw you want to detect and all variety of inspection environments.

2

I want to install new equipment due to the increase in items tested.

We provide equipment that can accommodate various types and processed amounts of workpieces, as well as a wide range of installation conditions.

3

I want to consult someone regarding fatigue testing of penetrants as well as periodic inspection of equipment.

MARKTEC can perform the necessary testing and inspection, and provide corresponding certificates and reports.

● Product lineup and features (For automotive and general industries)

Super Glo

Type	Product Name	Compatible with JIS	Features
Penetrant	OD-1800N		Excellent wastewater treatment and low foaming.
	OD-2800N		High fluorescent brightness and high sensitivity.
	OD-2800 II		High fluorescent brightness and higher sensitivity than the OD-2800N.
	OD-2800 III		Extremely high fluorescent brightness and optimal for hairline crack detection.
	OD-2800T	○	Super high sensitivity type using specially refined materials (Sensitivity level 4). Optimal for flaw detection in nuclear power equipment. *1
	OD-2900 III	○	High sensitivity type with less foaming than the OD-2800 III (Sensitivity level 3).
	RP-2000C		Solvent-removable fluorescent penetrant. Low viscosity makes it optimal for detecting penetration flaws.
	OD-20S		Water-based fluorescent penetrant to eliminate fire hazard.
	OD-50A· II		Water-based fluorescent penetrant with low COD value to eliminate fire hazard.
Developer	UD-T	○	Quick-drying developer. Optimal for flaw detection in nuclear power equipment. *1
	DN-600P	○	Dry developer. Fine white powder with excellent ultraviolet transmittance. Fluorescent glow of flaw indication allows users to detect minute flaws.
	DN-905D		Wet developer. Uses fine powder scattered in a fixed amount of water. Shows excellent contrast and provides clear indication of flaws without blurring.
	DN-600S	○	Aerosol-type quick-drying developer. Quick drying provides increased penetrant suction force.
Remover	AS-T	○	Solvent remover for water washing (water spray). Optimal for flaw detection in nuclear power equipment. *1

*1 Fluorine:30ppm or less, Chlorine: 100ppm or less, Sulfur:10ppm or less

Eco Glo

Type	Product Name	Compatible with JIS	Features
Penetrant	EG-2000		Fluorescent penetrant resistant to extreme washing. With superior wastewater treatment and washing performance.
	EG-400		Water-based fluorescent penetrant to eliminate fire hazard. Low foaming and COD value when discharging wastewater.

* For products not listed in this table or for other details, contact our sales department.

● Fluorescent Penetrant Inspection Unit / Waste Liquid treatment unit

No-Draining PT Unit (MH-1)



Fluorescent penetrant testing unit optimal for large-scale testing without the needs for wastewater treatment unit

Fluorescent Penetrant Inspection Unit (MA-1)



Standard-model fluorescent penetrant testing unit that can be designed and manufactured to meet your needs and installation conditions

UF Film Waste Water Processing Unit



UF membrane oil-containing wastewater treatment unit that treats wastewater after penetrant testing without the use of chemicals

● Table of major applicable regulations and our products

Super Glo

Type	Product Name	Fire Defense Law (Class 4)		OPHSCS	OPOSP	PRTR
		Name	Property			
Penetrant	OD-1800N	Class 3 petroleum	Water-soluble liquid	—	—	—
	OD-2800N	Class 3 petroleum	Non-water-soluble liquid	Class 2, Class 2 Specified substances	Class 3 Organic solvents	Class 1 Designated chemical substance
	OD-2800 II	Class 3 petroleum	Water-soluble liquid	Class 2, Class 2 Specified substances	Class 3 Organic solvents	Class 1 Designated chemical substance
	OD-2800 III	Class 3 petroleum	Non-water-soluble liquid	Class 2, Class 2 Specified substances	Class 3 Organic solvents	Class 1 Designated chemical substance
	OD-2800T	Class 2 petroleum	Water-soluble liquid	Class 2, Class 2 Specified substances	Class 3 Organic solvents	Class 1 Designated chemical substance
	OD-2900 III	Class 3 petroleum	Non-water-soluble liquid	—	—	—
	RP-2000C	Class 3 petroleum	Non-water-soluble liquid	—	Class 3 Organic solvents	Class 1 Designated chemical substance
	OD-20S	—	—	—	—	—
	OD-50A·II	—	—	—	—	—
Developer	UD-T	Class 1 petroleum	Water-soluble liquid	—	—	—
	DN-600P	—	—	—	—	—
	DN-905D	—	—	—	—	Class 1 Designated chemical substance
	DN-600S	Class 1 petroleum	Water-soluble liquid	—	—	—
Remover	AS-T	—	—	—	—	—

Eco Glo

Type	Product Name	Fire Defense Law (Class 4)		OPHSCS	OPOSP	PRTR
		Name	Property			
Penetrant	EG-2000	Class 3 petroleum	Non-water-soluble liquid	—	—	—
	EG-400	—	—	—	—	—

* Data obtained in July 2020. Refer to the safety data sheet (SDS) for the latest information.

● Test piece for penetrant test

Reference specimen specified in JIS Z 2343-3



Type1 : JIMA TP-01
(Ni-Cr Coating crack specimen)



Type3: JIMA TP-03
(AL burning crack specimen)

Test pieces conforming to
ASTM E1417



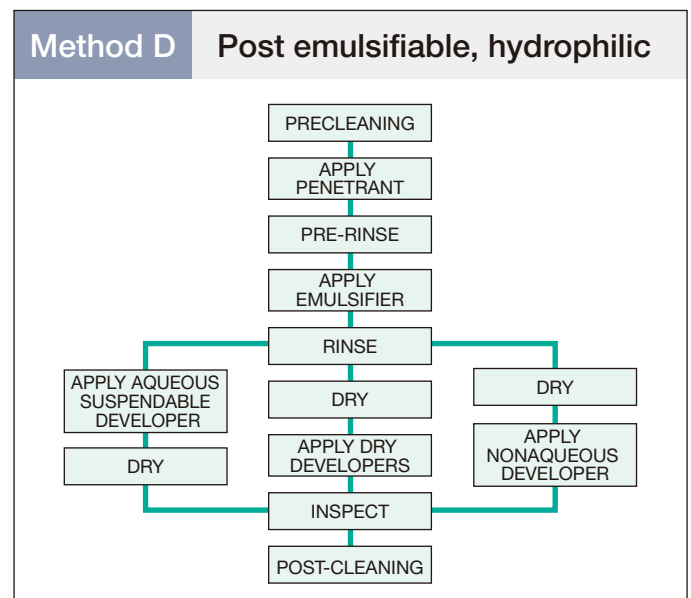
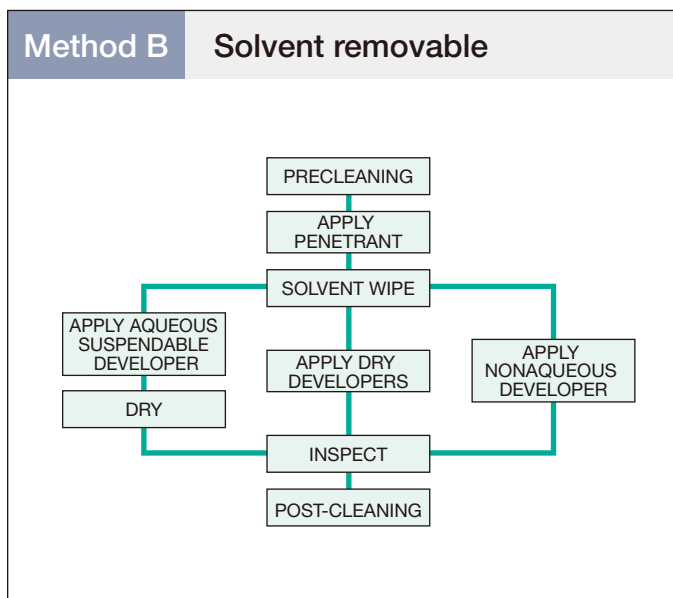
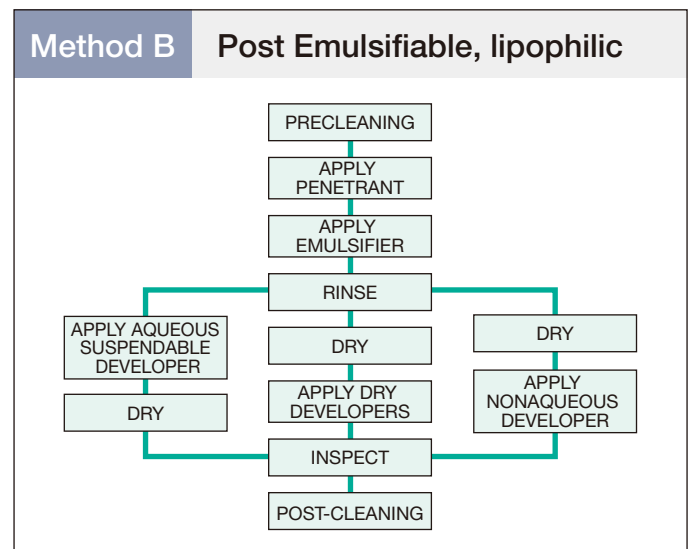
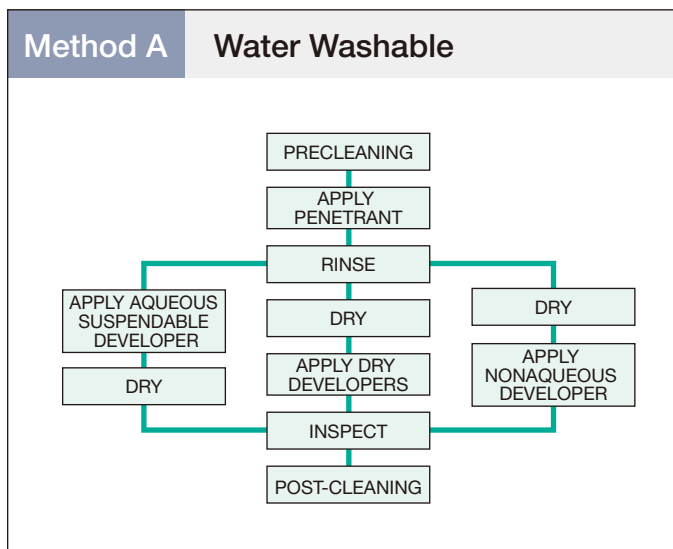
Sherwin, Inc.
PSM-5

● Product lineup and features (For the aerospace industry)

AMS Certified (QPL AMS2644)

Type	Product Name	Type	Method	Sensitivity Level	Features
Penetrant	P121	I	"A" Water Washable	2	Water washable or Solvent removable fluorescent penetrant.
	P130		"C" Solvent removable	3	
	P220	I	"B" Post emulsifiable, lipophilic	2	Post Emulsifiable or Solvent removable fluorescent penetrant.
	P230		"C" Solvent removable	3	
	P240		"D" Post emulsifiable, hydrophilic	4	
Emulsifier	E400	"B" emulsifiable, lipophilic		Emulsifier used in combination with P220, P230, P240	
	R500	"D" Post emulsifiable, hydrophilic (Diluted in water at a rate of 30%)			
Developer	D700	Form a		Dry developers	
	D701	Form d		Nonaqueous developer (Aerosol type)	
Remover	S600	Class(2), Nonhalogenated		Remover for Method "C"	

● Fluorescent Penetrant Process



● Table of major applicable regulations and our products

AMS Certified (QPL AMS2644)

Type	Product Name	Fire Defense Law (Class 4)		OPHSCS	OPOSP	PRTR
		Name	Property			
Penetrant	P121	Class 3 petroleum	Water-soluble liquid	—	Class 3 Organic solvents	Class 1 Designated chemical substance
	P130	Class 3 petroleum	Water-soluble liquid	—	—	Class 1 Designated chemical substance
	P220	Class 3 petroleum	Non-water-soluble liquid	—	Class 3 Organic solvents	Class 1 Designated chemical substance
	P230	Class 3 petroleum	Non-water-soluble liquid	—	Class 3 Organic solvents	—
	P240	Class 3 petroleum	Non-water-soluble liquid	—	Class 3 Organic solvents	—
Emulsifier	E400	Class 3 petroleum	Water-soluble liquid	—	—	—
	R500	Class 3 petroleum	Water-soluble liquid	—	—	Class 1 Designated chemical substance
Developer	D700	—	—	—	—	—
	D701	Class 1 petroleum	Water-soluble liquid	—	Class 2 Organic solvents	—
Remover	S600	Class 2 petroleum	Non-water-soluble liquid	—	Class 3 Organic solvents	—

* Data obtained in July 2020. Refer to the safety data sheet (SDS) for the latest information.

● Related equipment and services

Black Light (Portable type)



Easy to grip handheld LED black light (ASTM-compliant products are available)

Black Light (Stationary type)



Stationary LED black light capable of radiating at high strength across a wide range (Includes dimmer function)

UV light intensity tester



UV light intensity tester necessary for daily inspection of black lights

● In-Use testing

Penetrant used for testing can become contaminated with foreign material or moisture, resulting in it becoming degraded, such that highly reliable test results cannot be obtained. We receive the penetrant you are currently using to perform testing based on ASTM, AMS, and similar standards. Test results are provided in the form of a In-Use testing results report.

Inspection item : Water Content, Fluorescent Brightness, Sensitivity, Penetrant Removability

* Please contact our sales personnel if you want to perform testing other than the test items to the left.

● Regular inspection of flaw detection unit

It is necessary to periodically inspect penetrant test units to ensure their performance is optimal. We discuss your situation beforehand and then inspect the required items. Inspection results are provided in the form of a report.

Inspection item example : Black light UV intensity test, Inspection room illuminance test, Washing nozzle flow test, Drying unit outside air inhalation test, Drying unit temperature rise test etc...

The specifications are subject to change for improvement without notice.

Integrated supplier of Non-Destructive Testing and Marking



MARKTEC

MARKTEC Corporation
www.marktec.co.jp

[HEAD OFFICE] 17-35, Omori Nishi 4-chome, Ota-ku, Tokyo, 143-0015, Japan

TEL.+81-3-3762-4451

Overseas Sales Dept. TEL.+81-3-3762-4453

Narita Plant TEL.+81-476-49-3160