

GF-500 Solvent (PFOA control product)

Fluorocarbon mold release agent DAIFREE™

Characteristics

DAIFREE™ GF-500 is a new mold release agent that matches the environmental regulations. It has the equivalent mold release performance as conventional GF-6030 and GF-3030.

Features

Good release performance with the fluorocarbon as the principal ingredient. Highly precise release performance can be obtained with a thin film.

The composition complies with the regulations on environmental burden substances such as PFOA and ozone-depleting substances.

Excellent drying characteristics are ideal for the application which requires fast drying.

Prevents molds from becoming contaminated, and reduces the number of mold cleaning cycles.

Properties*

Appearance	Light brown clear liquid
Specific gravity	0.79 (at 25°C)
Density of solid component	3 mass %
Principal solvent	Isohexane
Recommended dilution multiples	1 - 5 times
Hazardous material classification	Class 4, Petroleum group 1 (not water soluble)
Diluting solvent	Petroleum solvent such as Isohexane, Isooctane Isopropyl alcohol

*Typical properties are not suitable for specification purposes.

Scope of Use

Rubbers: SBR, NBR, EPDM, CR, U, FKM, etc.

Thermosetting resins: Epoxy, Non-saturated Polyester, Phenol resin, etc.

Thermoplastic resins: PE, PP, PVC, PS, ABS, PA, POM, PC, etc.

Comparison with conventional DAIFREE™ GA-6330, GA-3030

	GF-500	GF-6030 (conventional)	GF-3030 (conventional)
Active ingredient	Fluorocarbon compound	Fluorocarbon compound	Fluorocarbon compound
Density of solid component	3	3	3
Specific gravity	0.79	1.23	0.70
Principal	Isohexane	HCFC-141b	Isooctane
Flammability	Flammable	Nonflammable	Flammable
Fire Defense Law	Class 4, Petroleum group 1	Not applicable	Class 4, Petroleum group 1
Recommended dilution solvent	Isohexane, Isopropyl alcohol	HCFC141b, Isopropyl alcohol	Isooctane
Recommended dilution multiples	Undiluted solution - 5 times	Undiluted solution - 5 times	Undiluted solution - 5 times
Quantity packed	13 kg	20 kg	12 kg
Container	Iron drum	Iron drum	Compound drum of iron and polyethylene

The data is an example of actual measurement, not guaranteed value.

Continuous mold release test by semi-rigid urethane foam

Mold release agent	Number of continuous release operations									
	1	2	3	4	5	6	7	8	9	10
GF-500	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗
GF-6030	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗
GF-3030	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗
Silicone base	✗	✗								

Release performance evaluation criteria

Classification

- ✓: Releases easily
- ✗: Releases when small force applied
- ✗: Releases when strong force applied
- ✗: Does not release

Release test conditions

Molding conditions

- ☑ Mold material Aluminum
- ☑ Mold shape 5.5cm Ø 1cm
- ☑ Mold temperature 25°C
- ☑ Release agent application method Single application by spray at normal temperature

Method of Use

Application method

Apply a uniform coating film using an air spray device, brush, or rag. (When it is used for the first time, make sure the mold release agent used previously has been completely removed before application.)

Cleaning the mold

Alkaline cleaning agents are effective. (Immerse in a 10% aqueous solution of Potassium hydroxide or Sodium hydroxide to which a small amount of surface active agent has been added. The temperature of the cleaning solution should preferably be 60 - 80°C.)

Slight contamination can be removed by wiping with a solvent (Isopropyl alcohol or Toluene).

Usable Temperature Range

Room temperature to 200°C

Cautions on Handling

Be sure to read the Safety Data Sheet (SDS) and precautions on the label before using this product.

Do not use this product for other than industrial purposes.

Store in a place under 35°C and avoid heat source or direct sunlight.

This product has been developed for industrial purposes and we shall not guarantee the safety if used other than the above. If it is going to be used for medical and/or food applications, please contact us in advance.