

Sun-Stat FIBCs: Instructions for Safely Filling and Discharging Sun-Stat Type D FIBCs

Updated: October 4, 2011

These instructions are being made available in light of Greif’s October 4, 2011 product safety warning relating to Sun-Stat TypeD FIBCs. All Sun-Stat FIBCs users should carefully read and adhere to these technical instructions before filling and discharging Sun-Stat FIBCs. Please forward these instructions to all Sun-Stat FIBC users known to you. Refer to the table below to determine how to safely use the Sun-Stat FIBC:

Decision Matrix for Safe Use of Sun-Stat FIBCs

Minimum Ignition Energy (MIE) of Product	Filling or Discharging Atmosphere		
	Non Flammable	Explosive Dust	Explosive Gas or Vapor
MIE is equal or greater than 3 mJ	Sun-Stat FIBC can be safely filled or discharged grounded or ungrounded		Do <u>not</u> fill or discharge the Sun-Stat FIBC; please contact Greif
MIE is less than 3 mJ	Sun-Stat FIBC can be safely filled or discharged when <u>properly grounded</u> *		

*See below for instructions for properly grounding

If you are unable to determine what you should do, you cannot follow the recommendation above, or the guidance indicates that you should contact Greif, please email us at flexible@greif.com or call us at +1-866-580-4481 (US) or +49-5971-91108-16 (outside of the US) so that we can assist you. Also, please realize that the Sun-Stat FIBC poses no safety risks when stored.

Before filling and discharging the Sun-Stat FIBC in accordance with these technical instructions, please ensure and note that:

- The FIBCs are visually inspected to ensure they are new, clean, and free from deterioration due to water, moisture, dirt, or dust. Water, moisture, dirt or dust may negatively impact the anti-electrostatic functionality of Type D FIBCs.
- Sun-Stat FIBCs and these instructions are intended for first use only.
- For grounded FIBCs, it is recommended that all conductive objects within 1 meter of the FIBC must be grounded with a resistance to ground that is less than 10 ohms. For ungrounded FIBCs, all conductive objects within 1 meter of the FIBC must be grounded with a resistance to ground that is less than 10 ohms.
- An electrician should ensure that proper grounding is achieved, maintained during the entire filling and discharging

Greif does not accept any liability arising from the use of Sun-Stat FIBCs that is not in accordance with these instructions.

There are two versions of the Sun-Stat FIBCs:

- 1) Sun-Stat FIBC WITHOUT grounding tape, and
- 2) Sun-Stat FIBC WITH blue grounding tape (also referred to as “Type D+”).

Both versions are constructed in a similar manner, and both versions can be safely grounded for filling and discharging when the conditions indicated in the “Decision Matrix for Safe Use of Sun-Stat FIBCs” table are met and the instructions below are followed.



1) Instructions for Grounding a Sun-Stat FIBC WITHOUT Grounding Tape:

Before proceeding, please be sure that the conditions indicated in the “Decision Matrix for Safe Use of Sun-Stat FIBCs” table above are met.

1A) How to fill and discharge when properly grounded filling and discharging equipment and facilities ARE available

- Customers and end-users may ground the Sun-Stat FIBC indicated in the table above, using filling and discharging equipment/facilities that are properly grounded. The FIBC will be directly grounded via the four lifting loops once they are hung on the suspension frame of a grounded filling or discharging facility. Resistance to the ground of the suspension frame should be measured and approved by an electricity expert..

Sun-Stat FIBC on Properly Grounded Filling and Discharging Equipment



1B) How to fill and discharge when properly grounded filling and discharging equipment and facilities are NOT available

- Customers and end-users may ground the Sun-Stat FIBC indicated in the table above using industrial grounding (or earthing) clamps

Industrial grounding clamps with cables are generally and readily available in all technical shops and warehouses. If you do not have access to clamps, Greif FPS can supply to them to you – just refer to the contact information at the end of this document. The below photos give examples of a proper grounding clamp and lifting loop grounding

Industrial Grounding or Earthing Clamps



- The grounding clamp's cable must be properly connected to the grounding rod of the plant.
- The ground clamp should be attached to the Sun-Stat FIBC on one of the lift loops in a way that the *clamp is contacting with at least one the thin blue yarn within the lift loop* – see photo below. Grounding should be validated and approved by electrician experts.

Properly Connecting the Grounding Clamp to the Sun-Stat FIBC's Lift Loop



2) Instructions for Grounding a Sun-Stat FIBC WITH Blue Grounding Tape:

Before proceeding, please be sure that the conditions indicated in the “Decision Matrix for Safe Use of Sun-Stat FIBCs” table above are met.

2A) How to fill and discharge when properly grounded filling and discharging equipment and facilities ARE available

- Customers and end-users may ground the Sun-Stat FIBC indicated in the table above, using filling and discharging equipment/facilities that are properly grounded. The FIBC will be directly grounded via the four lifting loops once they are hung on the suspension frame of a grounded filling or discharging facility. Resistance to the ground of the suspension frame should be measured and approved by electrician experts.

Sun-Stat FIBC on Properly Grounded Filling and Discharging Equipment



2B) How to fill and discharge when properly grounded filling and discharging equipment and facilities are NOT available

- Customers and end-users may ground the Sun-Stat FIBC indicated in the table above using industrial grounding (or earthing) clamps.

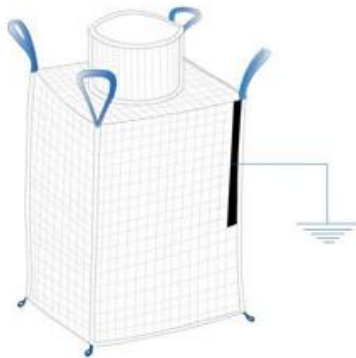
Industrial grounding clamps with cables are generally and readily available in all technical shops and warehouses. If you do not have access to clamps, Greif FPS can supply to them to you – just refer to the contact information at the end of this document. The below photos give examples of a proper grounding clamp and lifting loop grounding

Industrial Grounding or Earthing Clamps

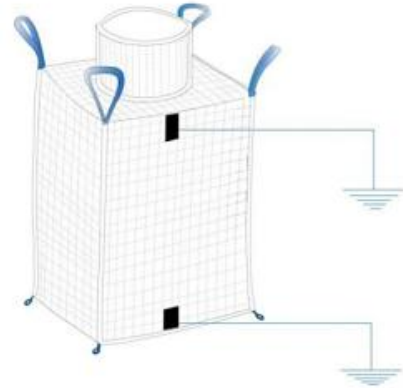


- The grounding clamp's cable must be properly connected to the grounding rod of the plant..
- Filling and discharging can be done by properly attaching the grounding clamp to the blue-colored grounding tape on the Sun-Stat FIBC's side seam or the grounding tape provided on the top and bottom seams. Grounding should be validated and approved by electrician experts.

Grounding Tape on Side Seam



Grounding Tape on Top or Bottom Seams



Clamp attached to Grounding Tape

