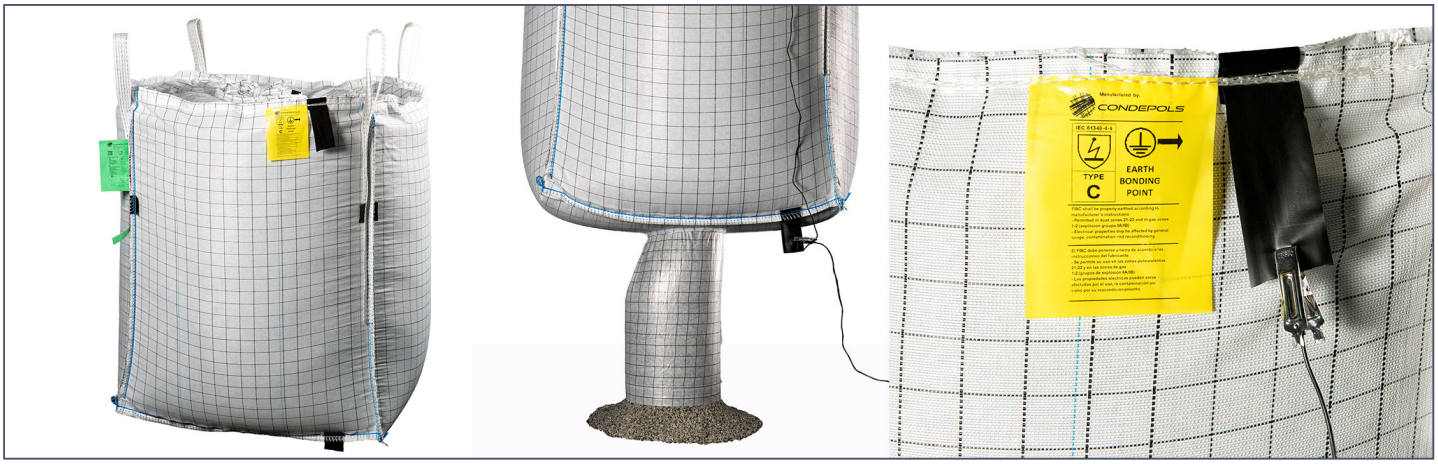
BigBags: Explosive Atmospheres



BigBags manufactured with a special fabric (conductive) enabling it to be filled, manipulated and discharged under potencial explosive atmospheres.

Since July 1993, companies working in areas with an explosive atmosphere must comply with the ATEX Directive which is the abbrevation of ATmosphere Explosive, primarily 94/9/EC ATEX, transposed to member states and which must be complied with in full. During handling of bulk solids static electricity is generated, mainly during the filling and emptying of the Big Bags. Once the Big Bag is electrostatically charged, and depending on the type of atmosphere and the accumulated charge, this may generate discharges that could ignite a potentially explosive atmosphere which is mandatory.

Big Bags have been designed for explosive atmospheres in accordance with the IEC 61340-4-4 Ed 2 standard International Electrotechnical Commision. This standard is used to unify the analysis for considering the Big Bag suitable in each category and their classification for their correct use.

We offer the following types of BigBag:

- **Type A Big Bags (not for use in explosive atmospheres)**
- This is the standard Big Bag. In explosive atmospheres there may be electrostatic discharges which could cause ignition.
- **Type B Big Bags**
- The difference from the standard BigBag is that the breakdown Voltage of the fabric is less than 6kV; this property ensure the absence of Propagating Brush Discharges.
- **Type C Conductive Big Bags**
- Constructed using a net of conductive tapes connected to two earth terminals. This avoids the generation of electroestatic charge Big Bag. And additionally, this avoids the generation of an electrostatic field that could damage workers or machinery.
- Conductive resistance from any point must be less than 1E7 Ohms (resistance which ensures that voltages that may cause electrostatic discharge cannot be reached). Furthermore, the fabric must have a breakdown Voltage below 6kV.
- **Type D Dissipative Big Bags**
- Constructed using a special dissipative wires which generate corona discharges, its energy is so low that it presensts no explosive risk and and it releases the accumulated charge on the Big Bag, avoiding the possibility of higher energy discharges. Earth terminals bags are not required but a certain level of cleanliness on the container surface is necessary to ensure a safe working environment.

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The following table should be used as a guide to help you choose the safest Big Bag for your needs:

Product to be loaded into BB	Zone around BB		
MIE of powder	Non-flammable atmospheres (Including powders with MIE >1000MJ)	Powder zones 21-22 (1000MJ >= MIE > 3mJ)	Gas zones 1-2 (Explosive groups IIA/IIB) or dusty zones 21-22 (MIE <= 3mJ) (for Type D MIE > 0.14mJ)
MIE > 1000mJ	A,B,C,D	B,C,D	C,D
1000mJ ≥ MIE ≥ 3mJ	B,C,D	B,C,D	C,D
MIE ≤ 3mJ	C,D	C,D	C,D

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