

PROCESS

Dust monitoring of PVC dust to avoid an explosive atmosphere

APPLICATION

At a PVC powder manufacturing site, large bags are filled with powder in the filling plant. The company's ATEX guidelines state that DustEx zone 22 is defined in the area of 5 m around the filling plant.

The mixture of PVC powder is ignitable at 60 g/m^3 which potentially can occur if a large bag breaks or the material overflows.

PROCESS DATA

| | |
|---------------|---------------------------------------|
| Customer: | Manufacturer of PVC powder |
| Material: | PVC powder |
| Installation: | Above the possible dust source |
| Function: | Dust monitoring to avoid an ATEX area |



SOLUTION

AirSafe 2 monitors the dust concentration in the ambient air, e. g. in buildings, production halls, silos or boiler houses.

In the process described, the sensor was placed near the presumed dust source.

The filling plant can thus be permanently monitored.

In this application, a sensor was used that is suitable for use in DustEx zone 22. A switching point at 15 g/m^3 was pre-calibrated, which means that if a large bag is ruptured, the system is reliably switched off via the sensor relay before an ignitable concentration of the material is reached.



AirSafe 2

CUSTOMER BENEFITS

- avoidance of explosive atmosphere
- avoidance of premature shut-down of the plant
- protection of employees: dust concentrations that could potentially endanger employees are detected early and reliably

Monitoring for Powder, Dust & Gas