

TECH TIPS

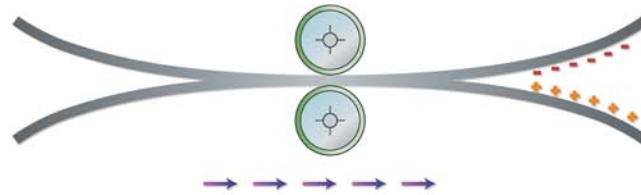
How is Static Generated

Static electricity is a surface phenomenon and results when two or more surfaces are in intimate contact with each other and then are separated. During contact, surface electrons, which are negative, migrate from one surface to the adjacent surface. When the surfaces separate, the surface that gains the electrons becomes negatively charged, the surface giving them up becomes positively charged.

The magnitude (field intensity) of the charge is dependent on many factors such as type of material and their physical and electrical

characteristics, temperature and humidity, contact pressure and speed of separation. Typically, the greater the pressure and speed of separation, the higher the charge. Static charges tend to be higher during winter months due to lower ambient humidity. When humidity is high, materials such as uncoated paper tend to absorb moisture, making the surface semiconductive, allowing some of the charges to flow to ground.

CONTACT + PRESSURE + SEPARATION



Friction, pressure and separation are the major causes of static electricity.