Purity is the top priority – metal-detectable membranes and mats!

Prevention of contamination is the #1 priority in the food, pharmaceutical, and biotech industries. Even the smallest elastomer particles must be detected by metal detectors or x-ray equipment. Tec-Joint AG offers two alternative solutions.

Flat seals made of elastomers are commonly used in pipelines and pumps. In harsh 7/24 use in e.g. processing and packing plants in the food and pharmaceutical industries, material wear or fatigue due to aggressive process conditions represents a considerable risk factor. The risk is particularly high at places in the plant where visual inspection is impossible. Even the slightest amounts of disintegrated seal material can lead to food contamination. In order to be able to react as quickly as possible, metal detectors or x-ray devices are often used to detect contaminated substances. The advantage of x-ray machines over metal detectors is that they can detect a larger number of foreign bodies. This is due to the fact that the x-ray density of foreign objects must be clearly distinguishable from that of food or other materials in order to be detected. In practice, an x-ray machine can detect objects such as glass, metal, stone, bone and some higher-density plastics such as PVC.

Due to the numerous demanding process parameters, the selection of a suitable material is of particular importance.

Prevention of contamination through the use of metal-detectable membranes and mats

We offer two types of metal-detectable elastomers: our EPDM, 60 Shore A in blue, which possesses very good resistance to water, diluted acids, alkalis and alcohols, ketones, glycols, and our NBR, 60 and 80 Shore A, also in blue, which possesses good resistance to fats and oils. The base materials used conform to BfR Recommendations, are listed in FDA Regulation 21 CFR 177.2600, and meet other applicable regulatory requirements. The polymer carrier and the magnetically detectable constituents also comply with EU Regulation 10/2011.

EPDM and NBR mats and membranes can also be produced in combination with woven or metal mesh.

All values given are average values and do not represent minimum or maximum values. Users must test suitability for their specific application.

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