

CORKRUBBER MATERIALS

Submitted by: Matt Messmer, Amorim Industrial Solutions

CorkRubber materials are an important part of the gasket fabricator industry. The applications for CorkRubber are countless ranging from sealing systems in automotive, electrical and natural gas industries to acoustic, thermal and vibration insulation.

Cork is a natural product, derived from the bark of the Cork Oak tree. It is harvested from the Cork Oak tree once the tree reaches maturity at 30 to 50 years, then subsequently every 7 to 9 years after that. The bark regenerates and actually prolongs the life of the tree.

The trees usually live to be 150 to 200 years old. Most of the world's Cork comes from Portugal where the climate is most suited for this type of tree. Cork usage dates back centuries in the wine industry as the main source for sealing bottles of wine and champagne. Today, it is still the most common sealing material for the wine industry.

So, why choose CorkRubber in today's challenging sealing environment? Well, it stems from the mixture of cork granules with natural or synthetic rubber. CorkRubber combines the compressibility and recovery characteristics of cork with the oil and gas resistance and the flexibility of rubber. Therefore, you have a unique product that can provide a wide range of fluid compatibility, minimal distortion under compression, reduced vibration, conformability to uneven flange surfaces, and excellent recovery properties; all of which provide for an excellent sealing environment. It is an especially good sealing material where there are long distances between bolt holes, due its ability to accommodate flange irregularities. There are a number of different grades of CorkRubber that are formulated to provide a wide range of compressibility. The rubber binder systems commonly used are Nitrile, Neoprene, SBR, Silicone and Hypalon®. The binder system typically provides the level of temperature and fluid resistance the material can accommodate.

CorkRubber is used in numerous sealing applications such as small gasoline engines, radiators, natural gas meters, gas pumps, and electrical transformers. It is also an excellent friction material that can be found in paper feeders for fax or copy machines, as a clutch facing material in braking systems, and as a die ejection material for the corrugated box industry. Cork Composition material is widely used for bulletin boards, trivets and coasters. Finally, Cork Composition, due to its light weight and specially formulated ablative type properties, is used in aerospace applications as a thermal insulation material.

There are many ASTM and SAE industry specifications that call out Cork and CorkRubber material. There is also the military AMS-C-6183 specification that specifically requires CorkRubber material. And lastly, some CorkRubber manufacturers have UL® listed materials specifically for natural gas and fuel applications.

So, next time you're called upon to provide a sealing solution, consider using a CorkRubber product in the application.