Dubo locking rings can be used on their own or with a toothed collar ring for especially high loading applications (i.e. when using 8.8 and 10.9 bolts). In addition to having the normal locking action of a standard lock washer, the elastic distortion which occurs when the material is subjected to heavy pressure creates considerable frictional resistance. Dubo polyamide sealing/locking rings are available for threaded fasteners from M2 to M52 and offer an inexpensive and simple solution for Original Equipment Manufacturers and Installers to permanently retain and seal threaded items. The shape of the ring is designed so that as the bolt is tightened, the screw thread is gripped both along the internal circumference and in the bolt hole. This brings into effect additional frictional forces, which make it impossible for the ring to rotate around the bolt. The Dubo system is applicable to all forms of hex nut or socket screw and the polyamide rings are resistant to all generally encountered chemicals, (i.e. alkalis, petrol, sea water etc.)

**DUBO retaining rings**

Multiple locking and sealing because DUBO retaining rings:
- flow into the threads of the bolt and the nut;
- create a particularly effective frictional resistance with the bolt and thereby;
- prevent rotation of the retaining ring around the bolt;
- wraparound the flats on the nut and thereby effectively prevent the nut from loosening;
- by filling all free spaces, seal against leakage.

Sound-deadening properties and durability because DUBO retaining rings:
- absorb vibrations arising in any bolt assembly;
- have plastic-flexible characteristics;
- neither deteriorate nor wear, and therefore can always be re-used again and again without loss of the above-mentioned advantages.

Insulation and protection of the surface of the material because DUBO retaining rings:
- are chemically resistant to Alkalis, to solutions of neutral inorganic salts, to oils, fats, petrol, benzine, alcohol, acetone, diluted acids, and sea water;
- prevent electrolytic corrosion between two different metal surfaces;
- prevent fatigue in the bolt material.

**Physical properties:**

Tensile strength up to the elastic limit 7 N/mm²
Ultimate tensile strength 26 N/mm²
Modulus of elasticity 66 N/mm²
Breakdown voltage 18 kV/mm
Rockwell hardness 115° R
Specific gravity 1.14

**Benefits**

Tight solid seal
Eliminate leakage
Protect the underlying surface
Sound deadening and isolation
Corrosion and chemical resistance

**Applications**

Aerospace
Electronics
Assembly
Construction
Maintenance

**SHAPES AVAILABLE**