



# Gasket and Seal Materials

Outgassing, which is the slow release of chemical vapors or particles from an apparent solid, is another area of concern because of the choice of lighting fixture gasket and seal materials. Solvent based parts eventually stop outgassing but are affected by some typical solvents used in cleaning. Thermoplastic gasket materials are cheap to buy, but they are common sources of outgassing. These vapors or particles are usually essential to the life of the thermoplastic material but add to the total particle counts for the cleanroom space. While the outgassing materials contaminate the cleanroom, the seals and gaskets disintegrate and fail to perform their critical functions, increasing contamination. A better choice in materials is a thermoset or cross-linked polymer variety such as polyurethane powder coatings and Kurtzon Klean - Lock SealPro™ gaskets. A simple test of these products reveal that they don't shrink or melt with heat as do thermoplastic varieties.

Material Name:	Neoprene	Silicone	SBR	EPDM	Polyethelene	Klean-Lock SealPro™ (Kurtzon's gasketing)
<b>Physical Resistance</b>						
Resilience or Rebound	4	3	3	3	2	4
Compression Set	3	5	3	4	1	4
Tear Resistance	3	1	2	2	1	3
Tensile Strength	4	3	2	2	2	4
Abrasion Resistance	5	5	3	4	1	5
Weathering Resistance	4	5	3	5	1	3
<b>Chemical Resistance</b>						
Oils and Gasoline	3	1	1	1	3	4
Animal and Vegetable Oils	4	3	2	3	4	4
Alcohols *	4	3	3	2	2	3
Alkalies *	5	1	2	4	1	5
Acids	3	2	2	3	1	3
Hydrocarbon Solvents	2	1	1	1	1	5
Oxygenated Solvents	2	2	4	4	1	1

*\*(common cleaning agents)...1=Poor, 2=Fair, 3=Good, 4=Very Good, 5=Excellent*