



# FIRE RETARDANT ANTI STATIC SEALS

# F.R.A.S

# CONTACTLESS OR HERMETIC

# LOW DRAG

# LOW BREAKAWAY MASS

### MELCO F.R.A.S SEALS REDUCE FIRE RISK

Melco Conveyor Equipment supplies idlers worldwide to mining operations and factories. A fire on a conveyor is an always present danger, especially if the material conveyed is deemed flammable. Idler seals, although very insignificant in terms of calorific value, have always been identified as a potential risk. In order to mitigate the risk associated with the seals, Melco has introduced the FRAS seal in both standardised contactless and hermetic configuration.

### Rulmecca FRAS Contactless Seal - UL94-V0



COMPONENT	PREVIOUS MATERIAL	FRAS MATERIAL V0 RATED
Shaft Seal	POM-Acetyl (UL94-HB)	Nylon 6 - UL94-V0
Cover Cap	POM-Acetyl (UL94-HB)	Nylon 6 - UL94-V0
Male Labyrinth	Nylon 6 (UL94-V3)	Nylon 6 - UL94-V0
Female Labyrinth	Nylon 6 (UL94-V3)	Nylon 6 - UL94-V0
Back Seal	Nylon 6 (UL94-V3)	Nylon 6 - UL94-V0

### SIZE AVAILABILITY

AVAILABLE IN 25,  
30 AND 40 SERIES

### FIRE RETARDANCE

Melco and Rulmecca companies use the UL94 standard in the absence of definitive idler industry guidance. UL94 classifies plastics according to how they burn in various orientations and thicknesses. From lowest (least flame-retardant, HB) to highest (most flame-retardant, V-0), plastics are classified as follows:

HB: slow burning on a horizontal specimen; burning rate < 76 mm/min for thickness < 3 mm or burning stops before 100 mm  
V-2: burning stops within 30 seconds on a vertical specimen; drips of flaming particles are allowed.  
V-1: burning stops within 30 seconds on a vertical specimen; drips of particles allowed as long as they are not inflamed.  
V-0: burning stops within 10 seconds on a vertical specimen; drips of particles allowed as long as they are not inflamed.

The Rulmecca standardised seal cartridge comprises individual polymer components which have varying UL94 classifications. The individual polymer components that comprise the FR standardised Rulmecca seal cartridge are all classified as UL94 V-0.

### ANTI-STATIC

Anti-static materials are a category of electrostatic discharge materials that inhibit triboelectric charging. This kind of charging is the buildup of an electric charge by the rubbing or contact with another material. The ability of plastics to reduce static electricity is measured by means of the specific surface resistivity, using the Ohms-per-square unit of measurement. Plastics with a specific surface resistivity of 10<sup>9</sup> to 10<sup>12</sup> Ohms-per-square are considered to be anti-static.

# PREVENT THIS

