

## P54 THIN WEAR STRIP

### MATERIALS PROPERTY DATA SHEET

#### **Description:**

Kamatics P54 Thin Wear Strip material is a self-lubricating bearing material comprised of a resilient thermoset resin matrix with synthetic fibers in a laminate construction for strength and durability. The wear strip has a thin cross section of .010" (.25mm) and is ideal for applications that require impact, fretting, or abrasion resistance.

#### **Dimensional Constraints:**

P54 Thin Wear Strip is available in cut strips and other custom shapes within a maximum envelope of 12" x 48" (305mm x 1219mm).

#### **Physical Properties:**

Thickness: with peel ply	.012 inch ± .004 (.30mm ± .102)
without peel ply	.010 inch ± .004 (.25mm ± .102)
Operating Temperature Range:	-65°F to 250°F (-54°C to 120°C)
Density:	.0473 lb/in <sup>3</sup> (1.31 g/cc)
Hardness:	80 Shore D
Maximum Static Bearing Load:	35,000 psi (241 MPa)
Fluid Compatibility:	not affected by aerospace grade hydraulic fluid, hydraulic oil, de-icing fluid, jet fuel, water, and seawater.
Material Color:	Gray

#### **Dynamic Wear Properties:**

Maximum Dynamic Load:	10,000 psi (69 MPa)
Coefficient of Friction:	.09 - .15, depending upon load, speed, temperature, and mating surface condition

#### **Recommended Mating Surface Conditions:**

Surface Finish:	16 rms (0.4 um) or better
Hardness:	HRC 30 or better

#### **Bonding Procedures:**

P54 Thin Wear Strip comes with a removable woven nylon peel-ply on one surface to protect the bonding surface from dirt and debris. With the peel-ply removed and the back surface exposed, the P54 Thin Wear Strip is prepared for bonding onto a suitable surface. Standard room-temperature curing structural epoxy adhesives are recommended for bonding P54 Thin Wear Strip material, such as Hysol EA9309, Hysol EA9396 (Henkel Loctite Aerospace), Hysol EA9460 (Henkel Loctite Industrial), Scotchweld 460 (3M Co.), and Araldite 2011 (Huntsman).