

KAron B Data Self-Lubricating Liner Material

1. Characteristics:

- 1.1. Nominal liner thickness: .010 to .015 in. (.25 to .38 mm), Max thickness .060 in. (1.52 mm)
- 1.2. Operating temperature range: -100° F to +450° F (-73 to +232°C)
- 1.3. Coefficient of friction range: .03 to .10, depending upon pressure, and velocity.
- 1.4. Compatible backing substrate materials: stainless steel, carbon steel, titanium, aluminum bronze, aluminum, phenolic, fiberglass, inconel and others.
- 1.5. Surface speeds to 3 fpm (0.9 m/min)

2. Physical Properties:

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|--------------------------------------|-------------------------------------|
| 2.1. Specific gravity: | 1.508 |
| 2.2. Density | 1.505 gm/cc |
| 2.3. Hardness | Rockwell M 90/100 |
| 2.4. Approximate Compression Modulus | 7 x 10 ⁵ psi (4,828 MPa) |

3. Typical Load Carrying Capabilities:

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|-------------------------------|-----------------------|
| 3.1. Static Ultimate * | 120,000 psi (827 MPa) |
| 3.2. Static Limit ** | 80,000 psi (551 MPa) |
| 3.3. Dynamic (max.) | 50,000 psi (344 MPa) |
| 3.4. Dynamic (continuous) *** | 35,000 psi (241 MPa) |

Notes: * Equivalent to 1.5 times the static limit load, local liner distress may occur.

** Maximum load which will result in a permanent set in the liner no greater than .003 (0.08mm) inches after the load is applied for 3 minutes.

*** .0045 inches (0.114 mm) maximum permitted wear after 25,000 cycles of oscillation at ± 25° at 10 cpm (8 rms mating surface, R_c50 min.).
Typical liner thickness 0.012 in. (0.3 mm).

4. Applicable Specifications:

- 4.1 SAE AS-81820 – Bearings, plain, self-aligning, self-lubricating, low speed oscillation. (MS14101, MS14102, MS14103 & MS14104), (Kamatics KR-CNB, KR-CNGB, KR-CWB, KR-CWGB).
- 4.2 SAE AS-81934 – Bearings, sleeve, plain and flanged, self-lubricating (AS-81934/1-plain, AS-81934/2-flanged) (Kamatics KRJ-B & KRJ-UDB).

5. Typical Applications:

- 5.1. Airframe controls, flaps, etc., industrial applications requiring high load carrying capability and self-lubricating features.
- 5.2. The above information is to be considered as a guide only. Kamatics Corporation Engineering should be consulted for proposed applications.