

TO: Kee Doery
 KegLand Distribution Pty Ltd
 410 Princes Highway,
 Noble Park, Vic 3174.

OXYGEN TRANSMISSION TESTS OF O-RINGS

SAMPLES RECEIVED: 19/12/2022.

1. TEST RESULTS	OXYGEN TRANSMISSION RATE (OTR): 23 °C (±1°C), 0% or 90% RH inside, 50% RH (±5) out. Calculated to 100% oxygen at 1atm pressure. cm³/day (Cubic centimetres of oxygen per 24 hours through one O-ring)
White O-rings fitted to supplied keg-top	10.4 (@0% RH), 12.1 (@ 90% RH) Mean 11.3 cm³/day
Yellow O-rings fitted to supplied keg-top	0.43 (@0% RH), 0.39 (@ 90% RH) Mean 0.41 cm³/day

2. NOTES:

- 2.1 We expect that most (or virtually all) of the measured transmission is occurring through the O-rings. However, we have not attempted to measure the transmission (if any) occurring through the keg in/out fittings, pressure valve etc. Any such transmission from fittings etc. would be included in the measurement.
- 2.2 Results are reported on a 100% oxygen basis, which is the convention for published OTR data. Transmission in normal air (21% oxygen) would be 21% of the above results.
- 2.3 Oxygen transmission of both samples appears to be unaffected by changes in test humidity (RH).

3. TEST METHOD:

3.1 OTR: Based on ASTM F1307-02(2007), using Mocon Ox-Tran 2/22 and/or 2/21 instruments.
 Test gas was a certified N₂/O₂ mix for the white O-ring, room air for the yellow O-ring. All results were calculated to 100% oxygen at 1 atm. pressure.
 Test time was about two days per test. Instrument calibration was done with Mocon standard reference films.
 OTR test uncertainty: No information available for this variation of the method.



Photograph of keg-top connected to Ox-Tran 2/22 test instrument.

B. Gunn
 Bruce Gunn.
GunnLab®