

## TOLUENE STANDARD FUELS (TSF) ASTM D2699 & D2700

ASTM Octane Number Conversion for Standardisation Fuel Blends of Toluene, Iso-Octane and N-Heptane Composition of Blends by Volume.

**A** = These determined ratings, are the only permissible TSF blends allowed for engine temperature tuning.

MON Octane No	Toluene %	Iso-Octane %	N-Heptane %	RON Octane No
58.0	50	0	50	65.1
66.9	58	0	42	75.6
74.8	66	0	34	85.2
78.2	70	0	30	89.3 <b>A</b>
81.5 <b>A</b>	74	0	26	93.4 <b>A</b>
85.2 <b>A</b>	74	5	21	96.9 <b>A</b>
88.7 <b>A</b>	74	10	16	99.8 <b>A</b>
92.6 <b>A</b>	74	15	11	103.3
96.6	74	20	6	107.6
99.8	74	24	2	
100.8	74	26	0	113.0

### (TSF) RANGE OF USE

ASTM Toluene Standard Fuels (TSF) Permissible Octane Range.

MON TSF Blend	MON Octane Permissible Range	RON Octane Permissible Range	RON TSF Blend
58.0	Below 62.3	Below 70.3	65.1
66.9	62.2 - 71.0	70.1 - 80.5	75.6
74.8	70.7 - 76.7	80.2 - 87.4	85.2
78.2	76.4 - 79.9	87.1 - 91.5	89.3
81.5	79.6 - 83.5	91.2 - 95.3	93.4
85.2	83.2 - 87.1	95.0 - 98.5	96.9
88.7	86.8 - 90.8	98.2 - 100.0	99.8
92.6	90.5 - 94.7	100.0 - 105.7	103.3
96.6	94.4 - 98.4	105.2 - 110.6	107.6
99.8	98.1 - 100.0		
100.8	Above 100.0	Above 110.3	113.0