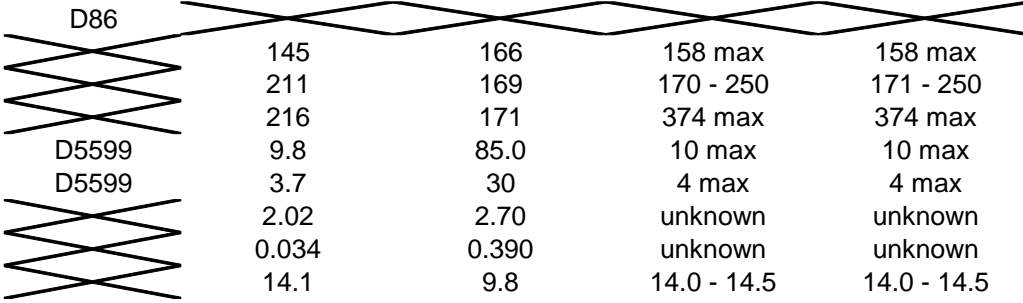


## Typical Fuel Properties - Formula SAE - 2020

Fuel Property	Test Method	Sunoco 260 GT	Sunoco E85-R	93 Octane	91 Octane (CA)
Specific Gravity	D287	0.734	0.790	0.720 - 0.760	0.720 - 0.760
Density (lb/gal)	D287	6.1	6.60	6.0 - 6.3	6.0 - 6.3
Research Octane No.	D2699	105	104 (estimated)	97-99	95-97
Motor Octane No.	D2700	95	94 (estimated)	87-89	85-87
Anti-knock Index	(R+M)/2	100	99 (estimated)	93	91
Reid Vapor Pressure, psi	D5191	6.4	4.2	6.0-15.0	6.0-15.0
D86 Distillation, deg F	D86				
10%					
50%					
90%					
Ethanol, vol%	D5599	9.8	85.0	10 max	10 max
Oxygen, wt%	D5599	3.7	30	4 max	4 max
H/C Ratio		2.02	2.70	unknown	unknown
O/C Ratio		0.034	0.390	unknown	unknown
Stoichiometric A/F Ratio		14.1	9.8	14.0 - 14.5	14.0 - 14.5
Lower Heating Value (kBtu/gal)	D3338	109.2	82.2	unknown	unknown
Lower Heating Value (kBtu/lb)	D3338	17.9	12.5	unknown	unknown