

Assuring Machine Health.™

Diesel Fuel ASTM Limits

The American Society of Testing and Materials is responsible for setting the standards by which commercial fuel quality is measured. Refineries are required to incorporate these limits into their production specifications and resellers are inspected by state and federal agencies to make sure that these specifications are maintained.

The following table documents the limits for the five categories of diesel fuel defined by ASTM

ASTM D975 Requirements for Diesel Fuel						
Property	Test Method	Low Sulfur # 1-D	# 1-D	Low Sulfur # 2-D	# 2-D	# 4-D
Flash, ° F, min	D 93	100	100	126	126	131
Water and sediment, % volume, max	D 2709 D 1796	0.05	0.05	0.05	0.05	0.05
Distillation temp °F @ 90% recovered min max	D 86	550	550	540 640	540 640	NR
Viscosity, 104° F, cSt min max	D 445	1.3 2.4	1.3 2.4	1.9 4.1	1.9 4.1	5.5 24.0
Ash, % max	D 482	0.01	0.01	0.01	0.01	0.1
Sulfur, % max	D 2622	0.05	0.5	0.05	0.5	2.0
Copper Strip Corrosion, 3 hr at 122° F max	D 130	No. 3	No. 3	No. 3	No. 3	NR
Cetane #, min	D613	40	40	40	40	30
Cetane #, min or Aromaticity, % vol, max	D 976 D1319	40 35	NR	40 35	NR	NR
Ramsbottom 10% dist. carbon residue	D 524	0.15	0.15	0.35	0.35	NR

NR = Not Required