

# Synfuels Jet – High Aromatic

Synfuels Jet Fuel Sample - High Aromatic Content						
Property	Test	Unit	Specification	Dixie	Site	SASOL
Aromatics	D1319	% Vol	>8%, <25%	22.90%	25.10%	
Distillation 10%	D86	C	<205	174	154	170.5
Distillation 50%	D86	C	Report	210	197	207.1
Distillation 90%	D86	C	Report	266	261	263.8
Distillation FBP	D86	C	<300	301.5	288	298
Distillation T50-T10	D86	C	>15	36	43	37
Distillation T90-T10	D86	C	>40	93	107	93
Distillation, Residue	D86	%	<1.5%	1.4	1.5	
Distillation, Loss	D86	%	<1.5%	0.6	0.5	
Flash Point	D93	C	>38	42	45	45.5
Density	D4052	kg/m3	>775, <840	803.3	803	802.9
Freezing Point	D2386	C	<-40	<-70		<-70
Net Heat of Combustion	D240	Mj/kg	>42.8	43.1		43.4

MEETS OR EXCEEDS  
ALL  
JP-8 SPECIFICATIONS

## Other Properties

Olefins, AFRL	D1319	%Vol	Report	1.6	1.3	
Aromatics	GCXGC	mass %				19.1
Naphthalenes	D2425	% Vol	<3			<1
Distillation IBP	D86	C	Report	158.5		
Acidity		mgKOH/g	0.1			0.001
Smoke point		mm	>18			23
Viscosity @-20		cSt	<8			5.39
JFTOT Control Temp		C	>325			325
Filter Pressure Drop		mmHg	<25			4
Existant Gum			<7			5.3

Dixie : Correlates to Dixie Services Test Report 138926

SASOL : Data from measurements performed by SASOL, Inc.

Site: Data obtained from on-site analyzers and test equipment

# Synfuels Jet – Low Aromatic

Synfuels Jet Fuel Sample - Low Aromatic						
Property	Test	Unit	Specification	Dixie	Site	AFRL
Tag				138864	20110802A	7614
Aromatics	D1319	% Vol	>8%, <25%	7.70%	8.90%	9.80%
Distillation 10%	D86	C	<205	170	148	168
Distillation 50%	D86	C	Report	203	192	203
Distillation 90%	D86	C	Report	258	255	258
Distillation FBP	D86	C	<300	289	283	288
Distillation T50-T10	D86	C	>15	33	44	35
Distillation T90-T10	D86	C	>40	88	107	90
Distillation, Residue	D86	%	<1.5%	1.1	1	1.6
Distillation, Loss	D86	%	<1.5%	0.9	1	0.6
Flash Point	D93	C	>38	42	42	43
Density	D4052	kg/m3	>775, <840	782	783	782
Freezing Point	D2386	C	<40	<-70		<-77
Net Heat of Combustion	D240	Mj/kg	>42.8	43.6		43.4
Viscosity	D445	mm2/s	<8.0			5
Smoke Point	D1322	mm	>25			26.5
Thermal Stability Tube	D3241	@325C	<3			3A
Thermal Stability Pressure	D3241	mmHg	<25			0

MEETS OR EXCEEDS  
ALL  
JP-8 SPECIFICATIONS

## Other Properties

Flash Point, MIL DTL-83133F	D93	C	<68			
Olefins, AFRL	D1319	%Vol	Report	3	0.9	1.2
Cycloparaffins, AFRL	D2425	%Vol	Report			32
Aromatics	D2425	% Vol	>8%, <25%			7.3
Naphthalenes	D2425	% Vol	<3			<0.3
Distillation IBP	D86	C	Report	154.5	75	150
Total Aromatics	D6379	% Vol				6.6
QCM		ug/cm2				3
HPLC Phenolic Polar		mg/L				300
JFTOT		C				280

Dixie : Correlates to Dixie Services Test Report 138864

AFRL : Data from measurements performed by Air Force Research Lab.

Site: Data obtained from on-site analyzers and test equipment