

# GCFC 1.1.7 - calculated data

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## Standard conditions:

Parameter	Value	Dimensional unit
Standard Pressure	14.73	psi
Standard Temperature	60	°F

## Reference conditions:

Parameter	Value	Dimensional unit
Reference pressure of the gravity	14.73	psi
Reference temperature of the gravity	60	°F
Reference pressure of the mole density	14.73	psi
Reference temperature of the mole density	60	°F
Reference temperature of the heating	60	°F

## Gas components: Gulf Coast

Parameter	Value	Dimensional unit
Methane (CH <sub>4</sub> )	96.5222	%
Nitrogen (N <sub>2</sub> )	0.2595	%
Carbone dioxide (CO <sub>2</sub> )	0.5956	%
Ethane (C <sub>2</sub> H <sub>6</sub> )	1.8186	%
Propane (C <sub>3</sub> H <sub>8</sub> )	0.4596	%
Water (H <sub>2</sub> O)	0	%
Hydro sulfide (H <sub>2</sub> S)	0	%
Hydrogen (H <sub>2</sub> )	0	%
Carbone monoxide (CO)	0	%
Oxygen (O <sub>2</sub> )	0	%
i-Butane (iC <sub>4</sub> H <sub>10</sub> )	0.0977	%
n-Butane (nC <sub>4</sub> H <sub>10</sub> )	0.1007	%
i-Pentane (iC <sub>5</sub> H <sub>12</sub> )	0.0473	%
n-Pentane (nC <sub>5</sub> H <sub>12</sub> )	0.0324	%
n-Hexane (nC <sub>6</sub> H <sub>14</sub> )	0.0664	%
n-Heptane (nC <sub>7</sub> H <sub>16</sub> )	0	%
n-Octane (nC <sub>8</sub> H <sub>18</sub> )	0	%
n-Nonane (nC <sub>9</sub> H <sub>20</sub> )	0	%
n-Decane (nC <sub>10</sub> H <sub>22</sub> )	0	%
Helium (He)	0	%
Argon (Ar)	0	%

## Input parameters:

Parameter	Value	Dimensional unit
Heating value	1036	Btu/cf
Elevation	0	ft
Specific gravity	0.55	

Method of calculation

AGA-8 Detailed

**Output parameters:**

Average pressure	Average temperature	Compressibility factor	Super compressibility factor	Density at gravity reference conditions	Density at working conditions
100.00 psia	32.00 °F	<b>0.98232089</b>	1.01581239	0.04 lbm/cf	0.32 lbm/cf
100.00 psia	50.00 °F	<b>0.98440262</b>	1.01366424	0.04 lbm/cf	0.31 lbm/cf
100.00 psia	100.00 °F	<b>0.98890952</b>	1.00904452	0.04 lbm/cf	0.28 lbm/cf
100.00 psia	130.00 °F	<b>0.99094237</b>	1.00697454	0.04 lbm/cf	0.27 lbm/cf
200.00 psia	32.00 °F	<b>0.96457836</b>	1.03449732	0.04 lbm/cf	0.66 lbm/cf
200.00 psia	50.00 °F	<b>0.96881732</b>	1.02997099	0.04 lbm/cf	0.63 lbm/cf
200.00 psia	100.00 °F	<b>0.97794044</b>	1.02036248	0.04 lbm/cf	0.57 lbm/cf
200.00 psia	130.00 °F	<b>0.98203218</b>	1.01611103	0.04 lbm/cf	0.54 lbm/cf
400.00 psia	32.00 °F	<b>0.92903270</b>	1.07407816	0.04 lbm/cf	1.37 lbm/cf
400.00 psia	50.00 °F	<b>0.93781050</b>	1.06402491	0.04 lbm/cf	1.31 lbm/cf
400.00 psia	100.00 °F	<b>0.95646164</b>	1.04327627	0.04 lbm/cf	1.17 lbm/cf
400.00 psia	130.00 °F	<b>0.96472837</b>	1.03433646	0.04 lbm/cf	1.10 lbm/cf
600.00 psia	32.00 °F	<b>0.89370480</b>	1.11653617	0.04 lbm/cf	2.14 lbm/cf
600.00 psia	50.00 °F	<b>0.90729504</b>	1.09981174	0.04 lbm/cf	2.03 lbm/cf
600.00 psia	100.00 °F	<b>0.93577727</b>	1.06633679	0.04 lbm/cf	1.79 lbm/cf
600.00 psia	130.00 °F	<b>0.94824973</b>	1.05231111	0.04 lbm/cf	1.68 lbm/cf
800.00 psia	32.00 °F	<b>0.85910289</b>	1.16150666	0.04 lbm/cf	2.97 lbm/cf
800.00 psia	50.00 °F	<b>0.87769932</b>	1.13689701	0.04 lbm/cf	2.80 lbm/cf
800.00 psia	100.00 °F	<b>0.91613840</b>	1.08919540	0.04 lbm/cf	2.44 lbm/cf
800.00 psia	130.00 °F	<b>0.93277612</b>	1.06976767	0.04 lbm/cf	2.28 lbm/cf
1000.00 psia	32.00 °F	<b>0.82594995</b>	1.20812857	0.04 lbm/cf	3.86 lbm/cf
1000.00 psia	50.00 °F	<b>0.84958208</b>	1.17452305	0.04 lbm/cf	3.62 lbm/cf
1000.00 psia	100.00 °F	<b>0.89782971</b>	1.11140645	0.04 lbm/cf	3.12 lbm/cf
1000.00 psia	130.00 °F	<b>0.91850171</b>	1.08639289	0.04 lbm/cf	2.89 lbm/cf
1200.00 psia	32.00 °F	<b>0.79520971</b>	1.25483093	0.04 lbm/cf	4.81 lbm/cf
1200.00 psia	50.00 °F	<b>0.82363154</b>	1.21152929	0.04 lbm/cf	4.48 lbm/cf
1200.00 psia	100.00 °F	<b>0.88115952</b>	1.13243256	0.04 lbm/cf	3.81 lbm/cf
1200.00 psia	130.00 °F	<b>0.90562758</b>	1.10183673	0.04 lbm/cf	3.52 lbm/cf