

Technical Data Sheet & Drawing

Treater Operating Conditions

Two types of purification steps are provided for the Propylene Feed Purification. The first step is the Propylene dryer (118-CC-110A/B) and the second step is the **Propylene Treater** (118-CC-111A/B). Both, the Propylene Dryer and the Propylene Treater shall remove all the impurities to meet the required specification for Propylene Feed.

- The Propylene Treater shall remove mainly the Carbon monoxide (CO) and Oxygen (O₂).

The feedstock quality of propylene entering the PP unit at BL is given below.

S.NO.	Component	Unit	Specification at BL of PP Unit	Specification at outlet of Treater
1	Propylene	%	99.5 min wt.	99.5 min vol
2	Hydrogen	ppm vol.	2 max.	
3	Propane	%	0.4 wt max.	balance
4	Nitrogen (N ₂)		100 ppm vol max.	
5	Ethane		300 vol ppm max.	
6	Methane		200 ppm vol. max.	
7	C5 and heavier Hydrocarbons		20 ppm vol max.	
8	Total C4's	ppm	20 ppm wt. max	
9	Ethylene	ppm vol.	100 max	
10	Butane		10 mol ppm max.	
11	Butene		10 mol ppm max	
12	Pentene		10 ppm vol max	
13	Acetylene		3 ppm wt. max.	
14	Methylacetylene		3 ppm vol. max.	
15	Propadiene		5 ppm vol. max.	
16	1,3 Butadiene		5 vol ppm max.	
17	Total of 13, 14, 15, 16	ppm	10 mol ppm max.	
18	Green Oil (C8-C12)		20 ppm vol max.	
19	Oxygen	ppm vol.	2 ppm wt.max.	
20	Carbon monoxide (CO)	ppm vol.	0.2 max.	0.02 max
21	Carbon dioxide (CO ₂)	ppm vol.	3 max.	
22	COS	ppb vol.	20 ppb vol	
23	Total Sulfurs (H ₂ S + Mercaptanes + COS)	ppm wt.	1 max.	
24	Alcohols (Methanol)	ppm vol.	5 ppm vol max.	
25	Water	ppm wt.	2 max.	
26	Arsenic	ppm	0.03 ppm vol. max.	
27	Phosphine	ppm	0.03 ppm vol. max.	
28	Ammonia	ppm wt.	0.2 max.	
29	Cyclopentadiene		0.05 ppm vol. max.	
30	Hexane + Nonene		5 ppm wt. max.	
31	Total Carbonyls (e.g. MEK)	ppm vol.	1 max.	
32	Oxygenated solvents (Methanol, ethanol, propanol, acetone, acetaldehyde)		10 ppm vol max.	

[Signature]
 (R.K. Yadav)

Operating Medium	:	Liquid Propylene
Inlet liquid flow to the Treater	:	12059 Kg / hr
Operating Pressure	:	38 Kg / cm ² g
Operating Temperature	:	40 °C
Pressure drop in normal flow	:	0.02 Kg / cm ²
Density (at normal T & P)	:	478 kg/m ³
Regeneration Nitrogen Pressure	:	4 Kg / cm ² g
Regeneration Nitrogen Temperature	:	200 °C (max. 290 °C)
Regeneration Flow	:	700 Nm ³ /hr (max. 1000 Nm ³ /hr)
Minimum Absorption Cycle Time	:	Bidder to Specify.
Maximum Regeneration Cycle Time	:	Bidder to Specify.
Utility Requirement	:	Bidder to Specify.
Depressurization, purging, heating, regeneration, cooling and pressurization	:	Bidder to Specify.

Regeneration Gas Specification:

Low pressure nitrogen will be available for regeneration gas at following conditions:

Nitrogen	:	99.99 % Vol
Oxygen	:	< 3 vol ppm
CO2	:	< 3 vol ppm
Purity	:	free of oil and dust

Typical Regeneration fluid temperature/time are given below. However the same shall be confirmed by bidder.

Ры
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118-CC-111A/B

