

Synthetic Sweet Blend (SYN) Pool Quality Specifications

Quality Specifications for Component Streams to the Synthetic Sweet Blend (SYN) Pool***								
Quality	Units	Min	Max	Typical*	Pool Typical Ex- Superior**	Referee Test Method	Test Frequency	Enbridge Response to Crude Not Meeting Quality Specs
Existing Specifications								
Density (15C)	kg/m ³	>799	<876	850-875	862	ASTM D4052	Frequency: AR ²	Delayed shut-in ⁶
Viscosity, at reference temp	cSt	2	<20			ASTM D7042	Frequency: QR ⁴	Delayed shut-in ⁶
Olefins, total ¹	mass%		<1			H NMR	Frequency: R ⁷	Immediate shut-in ⁵
Vapour Pressure (VPCR _{4:1} @ 37.8 C)	kPa		85/95 ⁸			ASTM D6377	Frequency: QR ⁴	Immediate shut-in ⁵
S&W	vol%		0.5			ASTM D4007	Frequency: AR ²	Immediate shut-in ⁵
Organic Chlorides ¹	wppm		<1			ASTM D4929	Frequency: QR ⁴	Immediate shut-in ⁵
Component Typical								
Sulphur, total	wt%			0.12-0.21	0.21	ASTM D4294	Frequency: AR ²	Notification Process ⁶
Naphtha (IBP-350F)	mass% recovered			11-18	15	ASTM D7169	Frequency: MR ³	Notification Process ⁶
Distillate (350-650F)	mass% recovered			37-48	44	ASTM D7169	Frequency: MR ³	Notification Process ⁶
Gas Oil (650-980F)	mass% recovered			37-49	38	ASTM D7169	Frequency: MR ³	Notification Process ⁶
C4-	vol%			1.5-3.5		ASTM D2887		
Other Requirements								
<ul style="list-style-type: none"> Stream must be produced by an Upgrader 								

*The expected or anticipated crude quality of individual components, understanding the fact that there may be, on occasion, variability outside of the range of the typical.

**The estimated crude quality of a pool is based on a limited number of random composite samples of batches ex-Superior, timeframe June 2022 – May 2023.

***SYN (Synthetic Sweet Blend) is the pool name (transport commodity) effective May 1st. SSP (Syncrude Sweet Premium) is a receipt commodity name that will replace the former SYN (Syncrude) as the receipt commodity.

Notes

- For these properties, blending should not occur.
- AR: All Receipts of SYN component streams tested using weekly composite.
- MR: Monthly Random testing of SYN component streams.
- QR: Quarterly Random testing of SYN component streams. Upon violation perform probational testing at Enbridge discretion.
- Immediate shut-in upon identifying violation. Request third party Certificate of Analysis prior to subsequent receipt.
- Upon violation, notification to applicable party, increase monitoring. Consequence based on outcome of increased monitoring.
- R: Annual Random testing.
- Max 85kPa from May 1st through October 31st
Max 95kPa from November 1st through April 30th