



CORE LINEPIPE

CORE LINER[®] DATA SHEET AND OPERATING CAPABILITIES

VERSION 5.0
APRIL 21, 2023



1. GENERAL

CORE Liner® is a factory built HDPE lined carbon steel pipeline system using ClickWeld® mechanical interference fit joints.

2. APPLICATION ENVELOPE

PRODUCT	MAXIMUM PRESSURE RATING		MAXIMUM TEMPERATURE RATING		WATER	OIL	GAS	SOUR
	psi	kPa	°F	°C				
CL440	2620	18,070	180°F Water/ 140°F Oil	82°C Water/ 60°C Oil				YES
CL640	1780	12,280						
CL648	2140	14,740						
CL671	3160	21,810						
CL856	1870	12,900						
CL1071*	1950	13,440						
CL1279*	1830	12,610						

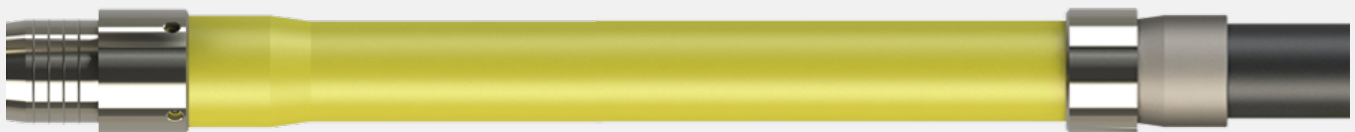
Note: the product performance is dependent on actual service parameters. Consult CORE Linepipe® for a project specific evaluation. *12" will be available Q3 2023. 10" will be available Q1 2024. 10" and 12" info is subject to change.

3. DIMENSIONS

PRODUCT	STEEL OUTSIDE DIAMETER		STEEL THICKNESS		LINER INSIDE DIAMETER		LINER THICKNESS		CLICKWELD® OUTSIDE DIAMETER		PIPE WEIGHT	
	in	mm	in	mm	in	mm	in	mm	in	mm	lb/ft	kg/m
CL440	4.500	114.3	0.157	4.0	3.72	94	0.23	5.8	5.98	152	9	14
CL640	6.625	168.3	0.157	4.0	5.81	148	0.25	6.4	8.25	210	14	21
CL648	6.625	168.3	0.188	4.8	5.74	146	0.25	6.3	8.25	210	16	24
CL671	6.625	168.3	0.280	7.1	5.59	142	0.24	6.1	8.66	220	23	34
CL856	8.625	219.1	0.220	5.6	7.52	191	0.33	8.3	10.75	273	25	38
CL1071*	10.750	273.0	0.280	7.1	9.37	238	0.41	10.3	13.74	349	40	59
CL1279*	12.750	323.8	0.312	7.9	11.14	283	0.49	12.4	15.83	402	53	79

Pipe standard length is 62 ft (18.7 meters)

*12" will be available Q3 2023. 10" will be available Q1 2024. 10" and 12" info is subject to change.



4. HYDRAULICS

PRODUCT	MAX. FLOW RATE	
	bbbl/day	m ³ /day
-		
CL440	15,000	2,400
CL640	37,000	5,900
CL648	36,000	5,800
CL671	34,000	5,500
CL856	62,000	9,900
CL1071*	96,000	15,400
CL1279*	135,000	21,700

*12" will be available Q3 2023. 10" will be available Q1 2024. 10" and 12" info is subject to change.

Hazen-Williams Coefficient	150
Darcy-Weisbach Surface Roughness	0.000005 ft (0.0015 mm)
Manning	0.009
Maximum flow velocity	13 ft/s (4 m/s)

5. BORES AND HORIZONTAL DIRECTIONAL DRILLING

PRODUCT	MAXIMUM RECOMMENDED TENSILE FORCE		OD OF PULL HEAD ASSEMBLY		MIN. REAMER SIZE IN COMPRESSIBLE SOIL	
	lb	kN	in	mm	in	mm
-						
CL440	90,000	401	7.3	185	12	305
CL640	130,000	579	9.5	241	14	356
CL648	160,000	713	9.5	241	14	356
CL671	230,000	1024	9.5	241	14	356
CL856	190,000	846	12.8	325	16	406
CL1071*	380,000	1,692	16.24	412	22	559
CL1279*	510,000	2,271	18.33	466	26	660

Note: the maximum pull load for the Core Liner® pull head is 60,000 lbs for the 4" size, and 80,000 lbs for the 6" and 8" sizes. For larger pull loads, please weld a suitable connection to the pipe wall.





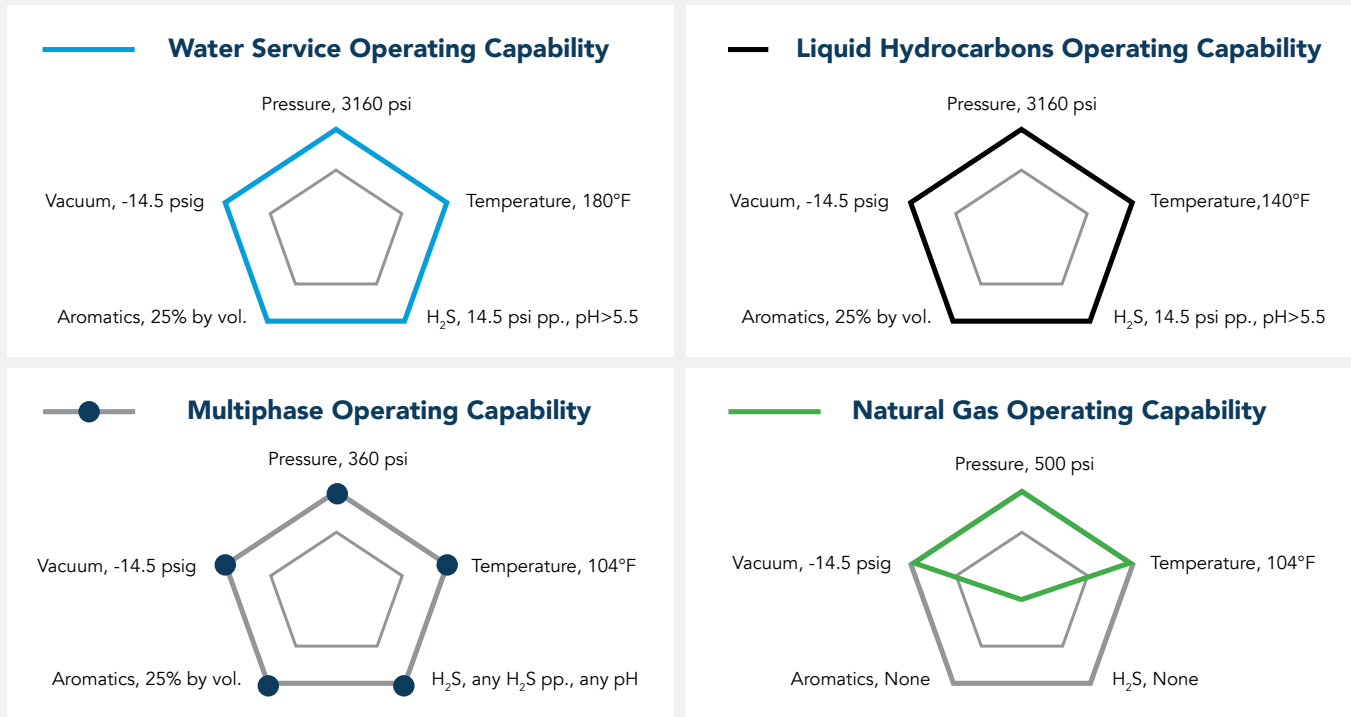
 CORE LINEPIPE

6. MATERIALS

Pipe	API spec 5L X52 PSL 2 ERW, or CSA Z245.1 Grade 359 Category II M45C SS ERW.
Flange	ASME B16.5 Raised Face with a ClickWeld® end.
	ASTM A350 LF2 class 1 for 4" ANSI 300 & 600, 6" ANSI 300 & 600, 8" ANSI 300, and 12" ANSI 600
	CSA Z245.12 Grade 359 Category II M45C Sour Service for 4" ANSI 900 & 1500, 6" ANSI 900 & 1500, 8" ANSI 600 & 900, and 12" ANSI 300 & 900
TOL	½" MSS SP-97 Class 3000 or 6000 NPT Threaded and Socket Welded, ASTM A350 LF2 Class 1
ClickWeld® Parts	API spec 5CT L80 Type 1
Bends	Shop or field cold bent pipes, minimum 20 x D bend radius. 12" field bends to be minimum 38.2 x OD
Riser	Shop or field cold bent pipes, minimum 20 x D bend radius. 12" field bent to be minimum 38.2 x OD
Liner	API 15LE bi-modal high-density polyethylene PE4710 with a minimum PENT >2000 hrs
EF Fitting	Bi-modal high-density polyethylene PE100+ with a minimum PENT >2000 hrs
Pipe Coating	Two Layer HDPE Coating up to 140°F (60°C), or Three Layer FBE with HDPE Coating up to 180°F (82°C).
Joint Protection	Field applied shrink sleeves or visco-elastic wrap

7. OPERATING CAPABILITIES

Note: The charts illustrate the product capability for each consideration alone. Please contact CORE Linepipe® for a project specific suitability evaluation for your desired combination of service parameters.



FLUID	CONDITIONS
Water	Up to the maximum pressure rating, up to 180°F (82°C)
Liquid Hydrocarbons	Up to the maximum pressure rating, up to 140°F (60°C)
Sour Liquids/multiphase	ANSI 300 service: any H ₂ S partial pressure and any pH Service up to pressure rating: H ₂ S partial pressure ≤ 14.5 psi (100 kPa) & a pH ≥ 5.5
Multiphase (with gas)	Up to 360 psi (2500 kPa), up to 104°F (40°C)
Sweet gas	Up to 500 psi (3500 kPa), up to 104°F (40°C)
Aromatics	Suitable for up to 25% aromatics up to 140°F (60°C)
Methanol	Suitable for saturated methanol up to 140°F (60°C)
Vacuum	Resistant to full vacuum (-14.5 psig or -100 kPa(g)) at 176°F (80°C) for 30 minutes*
Buckling	Liner buckling pressure of 65 psi (450 kPa) at 68°F (20°C) for a 24 hrs duration*

6 * SDR 25 or thicker liners

8. CONTACT US

For more information or to find the appropriate sales contacts for your region, please visit our website.

www.corelinepipe.com



CANADIAN HEAD OFFICE

910, 736 – 8th Avenue S.W.
Calgary, Alberta T2P 1H4
Canada

Toll Free: 1 855.757.7473

Email: info@corelinepipe.com

PRODUCTION PLANT

10 McCool Crescent
Crossfield, AB T0M 0S0
Canada

Phone: 403.861.0562

HOUSTON OFFICE

200, 2002 Timberloch Place
The Woodlands, Texas 77380
United States

Toll Free: 1 855.445.8889

Email: info@corelinepipe.com



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