



Safety Quiet Brake Pads Profile

Perfil de las Pastillas Metallica Safety Quiet



Characteristics



Friction Coefficient FF
Coeficiente de Fricción FF

Low Fade
Bajo desvanecimiento

Positive Mold Production
Producción por molde positivo

Excelent Stopping Power
Excelente Potencia de frenado

Materials: - Carbon Elements
- Inorganic Fiber, Kevlar
- Resin

Bajo Ruido
Low Noise

Materiales: - Elementos de Carbón
- Fibras Inorgánicas, Kevlar
- Resin

Low Dust
Bajo Polvo



Physical Properties

a. Physical Properties

Density

	Temperature [°C]	Operation	Remarks
1	R.T.	Weight	In Air
2	R.T.	Weight	In Water

Hardness

	Scale	Rockwell	Penetrator Diameter,mm	Standards Loading [N]	Test Loading [N]
1	R	HRR	12.7	98.07	588.4

pH Value

	Scale	pH Value (Buffer Solution)	Soak Solution
1	0.00~14.00	4.00,6.86,9.18	KCl(aq.3mol/L)

Shear Strength

	Positive Pressure [MPa]	Shear Force [KN]	Loading Ratio [N/s]	Power [KW]
1	0-0.5	0-100	4500±500	1.5

Porosity

	Temperature [°C]	Time [hr]	Remarks
1	90±10	8	In Oil
2	90±10→R.T.	Over 12	In Oil

Impact Strength

	Impact Speed [m/s]	Impact Power [J]	Impact Angel [°]	Sample size [mm]
1	2.9	0.5	150	55*10*6

Physical Properties

b. Physical Properties

Density (g/cm ³)	2.65~2.75	Hardness/HRR	60~75
pH Value	7.30~7.40	Shear (N/mm ²)	>6.50
Porosity/%	12%	Impact (KJ/m ²)	

Compressibility

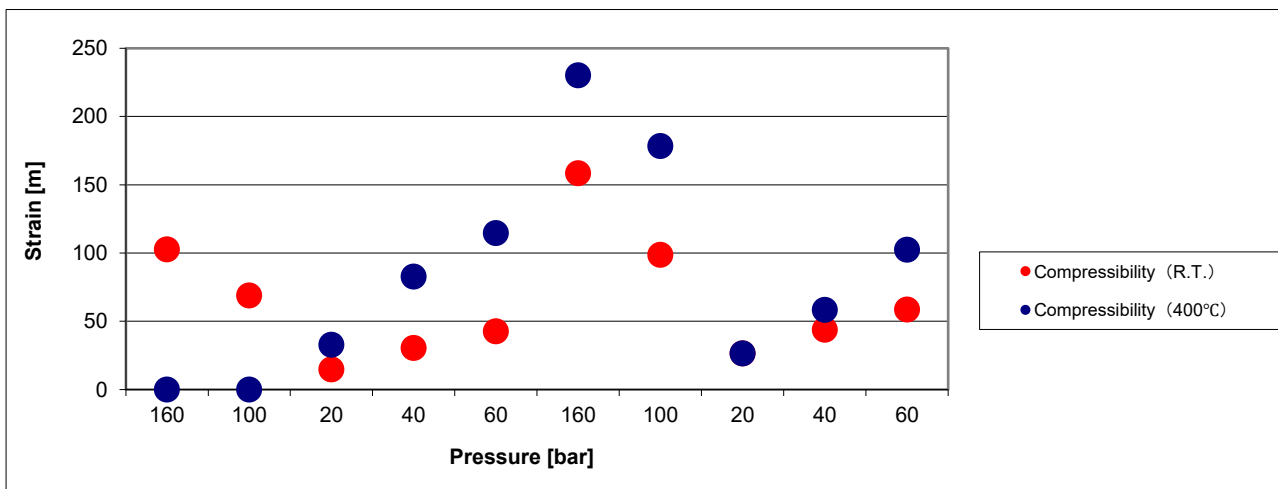
	Load Increment Ratio [Mpa/sec]	Initial Loading [Mpa]	Test Loading [Mpa]	Cycle
1	8±1	0.5	2~16	3

Compressibility (R.T.)

Load/bar	160	100	20	40	60	160	100	20	40	60
Cycle	3↓	3↑	3↑	3↑	3↑	1↓	1↑	1↑	1↑	1↑
Mean Value	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]
	102.6	68.8	14.8	30.4	42.6	158.4	98.6	26.4	43.8	58.6

Compressibility (400°C)

Load/bar	160	100	20	40	60	160	100	20	40	60
Cycle	2↓	2↑	2↑	2↑	2↑	1↓	1↑	1↑	1↑	1↑
Mean Value	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]
			32.8	82.6	114.6	230.2	178.2	26.4	58.2	102.3



SAE J-661 Chase test

Report 225014
International Motor Products, Inc.
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VEHICLE EQUIPMENT SAFETY COMMISSION (VESC) REGULATION V-3 MINIMUM REQUIREMENTS AND UNIFORM TEST PROCEDURES FOR MOTOR VEHICLE BRAKE LININGS BRAKE LINING TEST REPORT

Manufacturer: Xtender Automotive Corp Distributor: International Motor Products
CHINA USA

Identification Markings: XBP SQ-2412-FF

SUMMARY OF RESULTS FROM DATA SHEET

Normal Friction Coefficient = Average of "N" values 0.450
(Shall be over 0.25) Class F

Hot Friction Coefficient = Average of "H" values 0.444
(Shall be over 0.15) Class F

<u>Class Code</u>	<u>Coefficient of Friction</u>
C	Not Over 0.15
D	Over 0.15 But Not Over 0.25
E	Over 0.25 But Not Over 0.35
F	Over 0.35 But Not Over 0.45
G	Over 0.45 But Not Over 0.55
H	Over 0.55

Lowest Coefficient for readings marked (*) 0.360
(Shall not be less than 0.15)

Maximum absolute variation below average for readings marked (*) 0.080
(Shall not exceed 0.050 unless percentage variation is 20% or less)

Maximum percentage variation for readings marked (*) exceeding 0.050 below average 17.81 %

I certify that the above results were obtained on tests conducted in accordance with Vehicle Equipment Safety Commission Regulation V-3 on a seven sample lot from the linings submitted by the manufacturer as being representative of those regularly manufactured and marketed by him.

This test report issued in Adobe® Acrobat® format only.
Original retained on file at
Greening Testing Laboratories, Inc.

Date: 05 November 2021 Signature: _____



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VEHICLE EQUIPMENT SAFETY COMMISSION (VESC) REGULATION V-3 DATA SHEET

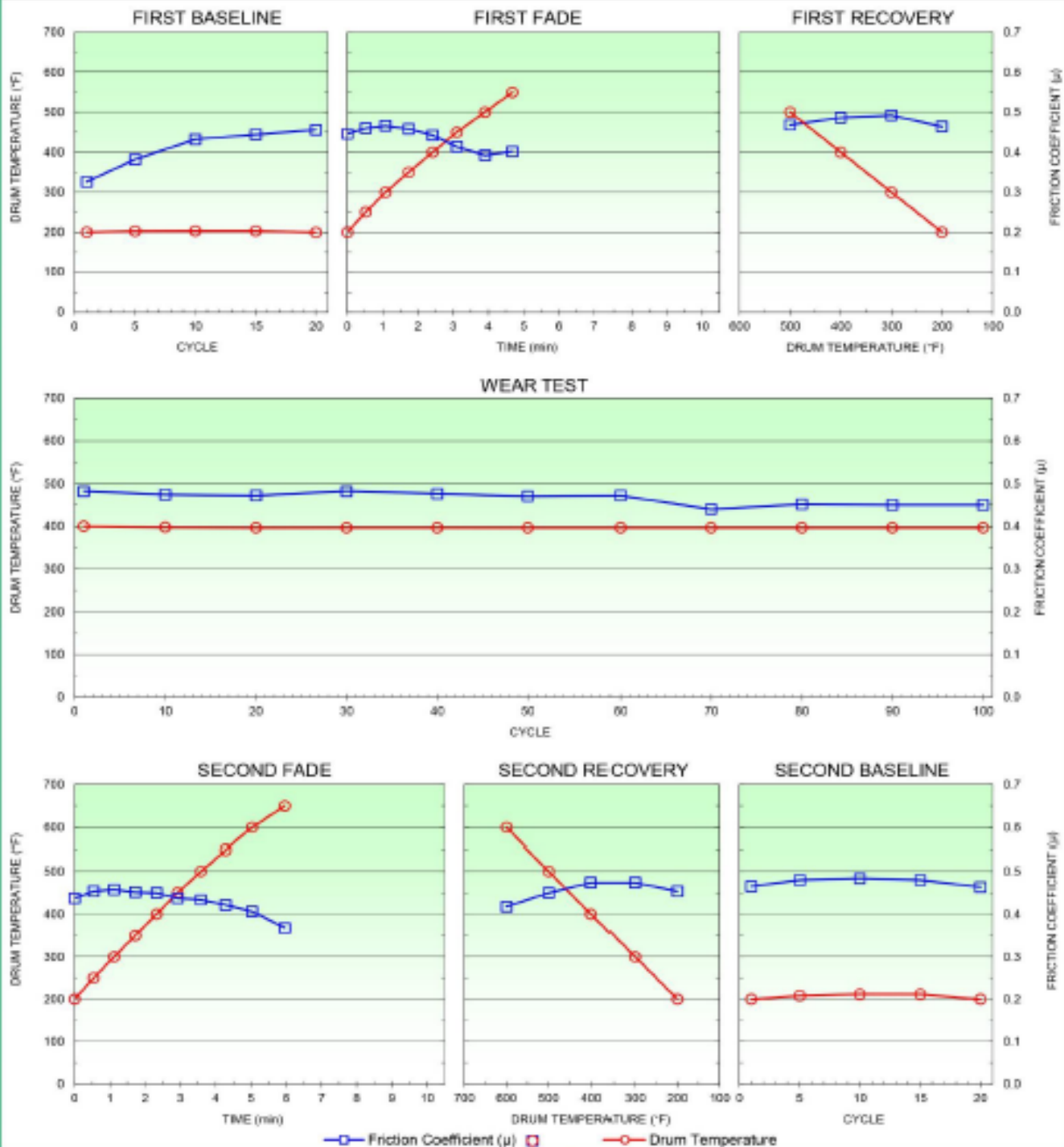
Identification Markings: XBP SQ-2412-FF

FRICTION COEFFICIENT (μ)							
Test No.	M22-709-01	M22-709-02	M22-709-16	M22-709-17	M22-710-05	Average	Maximum Variation Below Average
Test Date	13 Oct 21	14 Oct 21	22 Oct 21	23 Oct 21	05 Nov 21		
Appl. No.	<u>First Baseline Run</u>						
1	0.30	0.32	0.34	0.36	0.31	0.326	
20	0.45	0.44	0.49	0.48	0.42	0.456	
Temp. (°F)	<u>First Fade Run</u>						
200	0.44	0.41	0.48	0.49	0.41	0.446	
550	0.42	0.41	0.42	0.43	0.33	0.402	
Min at 550°F	4.7	4.6	4.6	4.6	4.9		
°F at 10 min	--	--	--	--	--		
Temp. (°F)	<u>First Recovery Run</u>						
500	0.46	0.49	0.52	0.50	0.37	0.468	
400	0.48	0.44	0.56	0.51	0.44	H 0.486	
300	0.50	0.45	0.54	0.51	0.46	H 0.492	
200	0.45	0.42	0.52	0.50	0.43	0.464	
Appl. No.	<u>Wear Run</u>						
1	0.48	0.46	0.52	0.51	0.44	0.482	
100	0.40	0.44	0.47	0.50	0.44	0.450	
Temp. (°F)	<u>Second Fade Run</u>						
200	* 0.43	* 0.41	* 0.42	* 0.42	* 0.51	N 0.438	0.028
250	* 0.40	* 0.45	* 0.47	* 0.46	* 0.49	N 0.454	0.054 11.89%
300	* 0.39	* 0.45	* 0.48	* 0.47	* 0.50	N 0.458	0.068 14.85%
400	* 0.37	* 0.45	* 0.46	* 0.48	* 0.49	N 0.450	0.080 17.78%
450	* 0.36	* 0.43	* 0.45	* 0.49	* 0.46	H 0.438	0.078 17.81%
500	* 0.36	* 0.44	* 0.44	* 0.47	* 0.46	H 0.434	0.074 17.05%
550	* 0.37	* 0.43	* 0.44	* 0.47	* 0.40	H 0.422	0.052 12.32%
600	0.36	0.44	0.44	0.45	0.34	H 0.406	
650	0.34	0.41	0.41	0.38	0.30	H 0.368	
Min at 650°F	5.8	5.8	5.8	5.9	6.5		
°F at 10 min	--	--	--	--	--		
Temp. (°F)	<u>Second Recovery Run</u>						
600	0.39	0.47	0.48	0.41	0.34	0.418	
500	0.41	0.49	0.50	0.47	0.38	H 0.450	
400	0.45	0.48	0.51	0.51	0.42	H 0.474	
300	* 0.44	* 0.48	* 0.49	* 0.52	* 0.44	H 0.474	0.034
200	* 0.43	* 0.43	* 0.45	* 0.51	* 0.45	0.454	0.024
Appl. No.	<u>Second Baseline Run</u>						
1	0.43	0.45	0.46	0.51	0.48	0.466	
20	0.41	0.38	0.51	0.51	0.51	0.464	

VEHICLE EQUIPMENT SAFETY COMMISSION (VESC) REGULATION V-3

AVERAGE DATA GRAPH

Identification Markings: XBP SQ-2412-FF



Friction and Wear - Constant Speed

b. Friction and wear

Equipment Name: Constant speed tester

Standard Applied: GB5763-2008

Test Temperature (°C)	Friction Coefficient	Coefficient appointed	Wear Rate 10-7cm ³ / (N·m)	Test Temperature (°C)	Friction Coefficient		Wear Rate 10-7cm ³ / (N·m)
					Warming	Cooling	
100	0.25-0.65	0.34±0.08	0-0.50	100	0.27	0.28	0.11
150	0.25-0.70	0.34±0.10	0-0.70	150	0.30	0.30	0.14
200	0.25-0.70	0.34±0.10	0-1.00	200	0.32	0.30	0.16
250	0.25-0.70	0.34±0.10	0-1.50	250	0.35	0.33	0.18
300	0.25-0.70	0.34±0.12	0-2.00	300	0.33	0.35	0.26
350	0.25-0.70	0.34±0.12	0-2.50	350	0.28		0.28

