



Safety Quiet Brake Pads Profile

Perfil de las Pastillas Metallica Safety Quiet



Characteristics



Friction Coefficient FF
Coeficiente de Fricción FF

Low Fade
Bajo desvanecimiento

Flash Mold Production
Producción por molde rápido

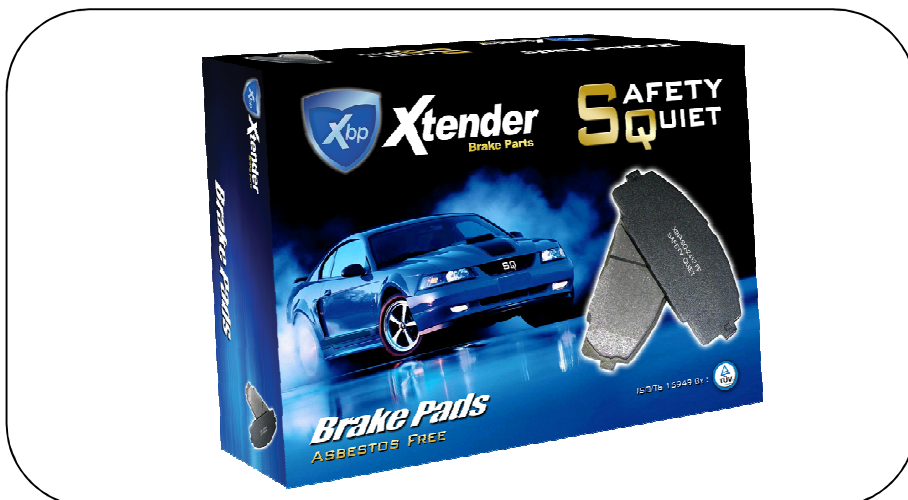
Excelent Stopping Power
Excelente Potencia de frenado

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

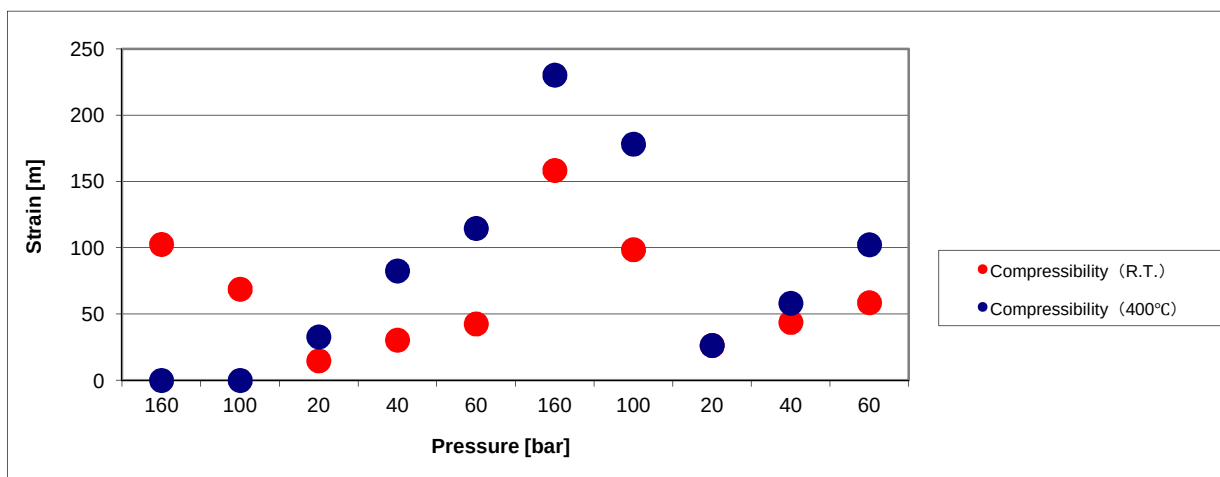
	Load Increment Ratio [Mpa/sec]	Initial Loading [Mpa]	Test Loading [Mpa]	Cycle
1	8±1	0.5	2~16	3

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 177922
International Motor Products, Inc.
Page 1 of 3

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-GG

SUMMARY OF RESULTS FROM DATA SHEET

Normal Friction Coefficient = Average of "N" values 0.476
(Shall be over 0.25) Class **G**

Hot Friction Coefficient = Average of "H" values 0.462
(Shall be over 0.15) Class **G**

<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 (*) (Shall not be less than 0.15) 0.410

Maximum absolute variation below average for readings marked (*) 0.028
(Shall not exceed 0.050 unless percentage variation is 20% or less)

Maximum percentage variation for readings marked (*) exceeding 0.050 below average None

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

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Original retained on file at

Date: 29 July 2017

Signature: _____

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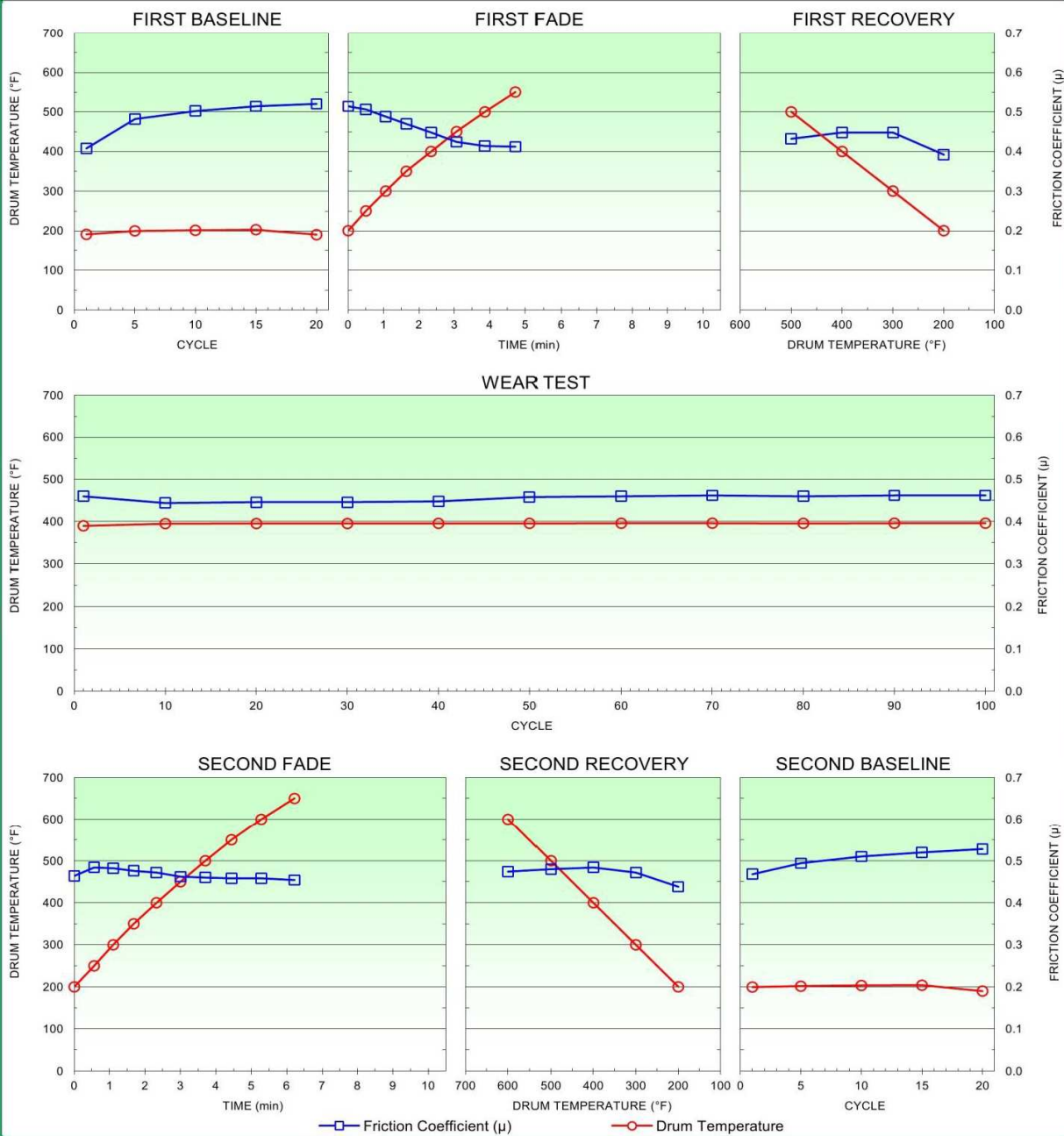
VEHICLE EQUIPMENT SAFETY COMMISSION (VESC) REGULATION V-3 DATA SHEET

Identification Markings: XBP SQ-2412-GG

FRICTION COEFFICIENT (μ)							
Test No.	M22-573-04	M22-573-05	M22-575-01	M22-575-02	M22-575-03	Average	Maximum Variation Below Average
Test Date	20 Jul 17	20 Jul 17	29 Jul 17	29 Jul 17	29 Jul 17		
Appl. No.			<u>First Baseline Run</u>				
1	0.39	0.36	0.47	0.40	0.42	0.408	
20	0.50	0.52	0.55	0.52	0.51	0.520	
Temp. (°F)			<u>First Fade Run</u>				
200	0.50	0.51	0.52	0.52	0.52	0.514	
550	0.42	0.42	0.41	0.40	0.41	0.412	
Min at 550°F	4.7	4.5	4.8	4.8	4.8		
°F at 10 min	--	--	--	--	--		
Temp. (°F)			<u>First Recovery Run</u>				
500	0.43	0.45	0.44	0.42	0.42	0.432	
400	0.45	0.46	0.46	0.44	0.43	H 0.448	
300	0.44	0.45	0.47	0.45	0.43	H 0.448	
200	0.39	0.39	0.39	0.39	0.40	0.392	
Appl. No.			<u>Wear Run</u>				
1	0.46	0.47	0.46	0.45	0.46	0.460	
100	0.46	0.45	0.47	0.48	0.45	0.462	
Temp. (°F)			<u>Second Fade Run</u>				
200	* 0.46	* 0.45	* 0.48	* 0.48	* 0.45	N 0.464	0.014
250	* 0.47	* 0.49	* 0.48	* 0.50	* 0.48	N 0.484	0.014
300	* 0.47	* 0.49	* 0.48	* 0.50	* 0.47	N 0.482	0.012
400	* 0.46	* 0.48	* 0.48	* 0.48	* 0.46	N 0.472	0.012
450	* 0.44	* 0.47	* 0.47	* 0.48	* 0.45	H 0.462	0.022
500	* 0.45	* 0.45	* 0.47	* 0.49	* 0.44	H 0.460	0.020
550	* 0.44	* 0.45	* 0.46	* 0.49	* 0.45	H 0.458	0.018
600	0.45	0.44	0.46	0.49	0.45	H 0.458	
650	0.45	0.43	0.46	0.48	0.45	H 0.454	
Min at 650°F	6.3	6.3	6.2	5.9	6.4		
°F at 10 min	--	--	--	--	--		
Temp. (°F)			<u>Second Recovery Run</u>				
600	0.46	0.47	0.48	0.49	0.47	0.474	
500	0.46	0.48	0.49	0.49	0.48	H 0.480	
400	0.47	0.48	0.51	0.49	0.47	H 0.484	
300	* 0.45	* 0.46	* 0.49	* 0.49	* 0.47	H 0.472	0.022
200	* 0.43	* 0.41	* 0.44	* 0.48	* 0.43	0.438	0.028
Appl. No.			<u>Second Baseline Run</u>				
1	0.46	0.45	0.48	0.49	0.46	0.468	
20	0.53	0.52	0.54	0.53	0.52	0.528	

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

Identification Markings: XBP SQ-2412-GG



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

