



Kyoto Japan Tire (International) S.A

Symbol of Quality & Performance

**Presentation of
Kyoto Japan
Ceramic Formula
for Brake Shoes**

Kyoto Japan Ceramic Formula:

A high comprehensive performance formula, which belongs to the NAO ceramic formula type, it is the latest generation of Nao formula with Japanese ceramic technology as the core, combined with national conditions of different countries to meet the requirements of passenger vehicles. The formula is made of asbestos free material, with copper, aramid fiber and ceramic fiber as the main reinforcement, and a variety of abrasives matched.

Characteristics of Kyoto Japan Ceramic formula:

- Stable friction performance under various braking pressures and speeds;
- Good pedal feel;
- Silent ceramic formula;
- High temperature resistance;
- Long service life even under high temperature;
- Eco-friendly materials: less damage against brake disc;
- Low dust;
- Guaranteed quality: maintain standards of international brand products;

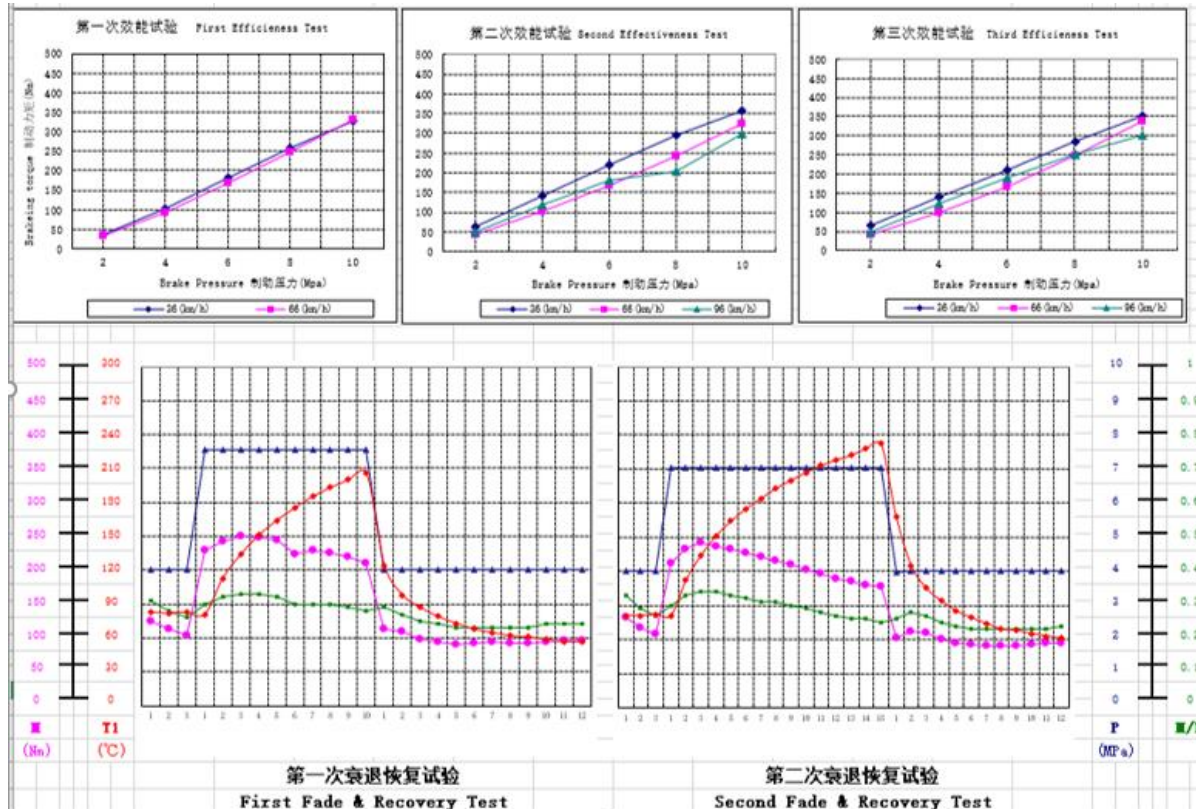
Physical performance

Symbol of Quality & Performance

Items		Ceramic Formula
Density	g/cm ³	2.2 ± 0.1
Hardness	HRS	80 ± 20
pH value		> 10
Porosity	%	5.5 ± 3.0
Internal Shear	MPa	> 8
Heat transfer	°C	$\leq 230^{\circ}\text{C}$
Swell	μm	≤ 100

QC/T564 Dyno Test:

Symbol of Quality & Performance



Comments , test platform is based on Changhe 6350 Rear Drum Brake

SAEJ661:

Symbol of Quality & Performance

LINK-CHASE SAE J-661 FRICTION MATERIAL TEST REPORT

Manufacturer: CAC
Material: F325R
Test Pressure: 150
Date: 08-26-2011
Test Number: 110826-1
Sample: 1 of 1

Wear Data	Start	Finish	Loss	% Loss	Start	Finish
Weight	9.020	8.430	0.590	6.5%	g/m3	2.164
Thickness	6.660	6.270	0.390	5.9%	Finish	2.153

INITIAL BASELINE			FINAL BASELINE		
Application	Frict Force	Coefficient	Frict Force	Coefficient	
1	52.6	0.351	75.7	0.504	
5	71.5	0.480	85.1	0.567	
10	77.5	0.534	86.2	0.579	
15	75.9	0.509	85.3	0.573	
20	76.9	0.509	87.4	0.590	

WEAR		
Application	Frict Force	Coefficient
1	73.4	0.487
10	71.8	0.477
20	74.2	0.501
30	75.4	0.498
40	73.4	0.490
50	71.7	0.479
60	72.0	0.481
70	73.0	0.494
80	72.3	0.484
90	72.8	0.487
100	73.7	0.499

FIRST FADE			
Time(min)	Frict Force	Coefficient	Temp(deg F)
0.0	71.3	0.477	200
0.5	75.8	0.510	244
1.0	73.6	0.483	304
1.5	70.6	0.461	356
2.0	66.9	0.463	402
2.5	66.1	0.442	438
3.0	66.5	0.437	476
3.5	66.3	0.438	509
4.0	64.4	0.427	541
4.1	64.5	0.434	550

SECOND FADE			
Time(min)	Frict Force	Coefficient	Temp(deg F)
0.0	68.8	0.472	200
0.5	71.7	0.479	245
1.0	74.5	0.497	304
1.5	79.0	0.523	367
2.0	77.6	0.518	428
2.5	72.5	0.481	472
3.0	71.3	0.484	516
3.5	69.5	0.459	557
4.0	69.3	0.459	593
4.5	64.9	0.423	625
4.9	63.3	0.424	650

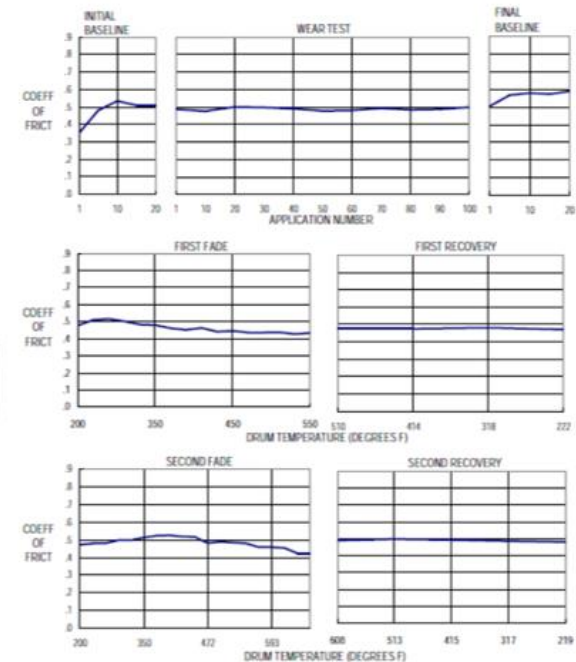
FIRST RECOVERY			
Application	Frict Force	Coefficient	Temp(deg F)
1	71.1	0.475	510
2	70.9	0.475	414
3	72.2	0.482	318
4	71.0	0.471	222

SECOND RECOVERY			
Application	Frict Force	Coefficient	Temp(deg F)
1	72.3	0.490	608
2	74.9	0.498	513
3	74.3	0.492	415
4	72.7	0.486	317
5	72.4	0.480	219

LINK-CHASE SAE J-661 FRICTION MATERIAL TEST REPORT

Manufacturer: CAC
Material: F325R
Test Pressure: 150
Date: 08-26-2011
Test Number: 110826-1
Sample: 1 of 1

Wear Data	Start	Finish	Loss	% Loss	Start	Finish
Weight	9.020	8.430	0.590	6.5%	g/m3	2.164
Thickness	6.660	6.270	0.390	5.9%	Finish	2.153



Comments , Classification GG

“Symbol of Quality & Performance”

Kyoto Japan Tire Group



Kyoto Japan Tire (International) S.A

1 Carrefour de Rive,

1207 Geneva – Switzerland

Tel: (+41.21) 826 11 77 & (+41.22) 789 32 00

Fax: (+41.86) 021 826 11 77

Emails: geneva@kyotojap.com & kyotojapantire@bluewin.ch

Kyoto Japan Tire Corporation Ltd.

Maison Hirakawa, 5-2 Hirakawa-cho 2-chome, Chiyoda-ku,

Tokyo – Japan

www.kyotojap.com