

CHASE

Chase Friction Material Test Report

TEST PROCEDURE: SAE J661

TEST NUMBER: XTC

TEAT DATE: 2023.05.18

CUSTOMER: Ketullabrakes

MATERIAL: Ceramic

TEST PURPOSE: Brake Lining Friction and Wear Evaluation Testing
Performed on a 1"×1" Friction Material Sample
As Supplide and Prepare per Specification SAE-J661

SIGNATURE: _____

The data contained in this report is applicable only to the above listed material and is not valid unless signed by the technician.
Measurement standards used for this test are traceable to the National Institute of Standards and Technology.
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Chase SAE J-661 Friction Material Test Report

Manufacturer: Ketullabrades
 Material: Ceramic
 Test Pressure: 150 psi

ceramic

2023.05.18
 XTC

Normal= 0.544 **G**
 Hot= 0.473 **G**

Wear Data

	Start	Finish	Loss	%Loss
Weight(g)	8.53	8.49	0.04	0.47
Thick.(mm)	6.8	6.74	0.06	0.88

Wear

Application	Force(N)	μ
1	290	0.438
10	307	0.466
20	338	0.513
30	350	0.531
40	355	0.539
50	370	0.56
60	377	0.571
70	385	0.582
80	390	0.59
90	386	0.585
100	393	0.595

Baseline

Application	Initial		Final	
	Force(N)	μ	Force(N)	μ
1	215	0.325	347	0.525
5	214	0.325	354	0.538
10	214	0.324	347	0.526
15	210	0.318	348	0.527
20	207	0.314	340	0.516

First Fade

Application	Force(N)	μ	Temp.(°C)
1	205	0.311	94
2	206	0.312	122
3	214	0.324	150
4	214	0.324	178
5	213	0.322	206
6	214	0.325	235
7	212	0.321	262
8	204	0.309	290

Time: 4:18

Second Fade

Application	Force(N)	μ	Temp.(°C)
1	360	0.546	94
2	361	0.547	122
3	358	0.543	150
4	357	0.542	178
5	356	0.54	206
6	351	0.532	234
7	341	0.516	262
8	324	0.492	290
9	305	0.461	318
10	283	0.429	346

Time: 4:29

First Recovery

Application	Force(N)	μ	Temp.(°C)
1	213	0.323	254
2	240	0.364	202
3	266	0.402	146
4	234	0.355	92

Second Recovery

Application	Force(N)	μ	Temp.(°C)
1	301	0.456	310
2	323	0.489	258
3	344	0.521	204
4	347	0.526	150
5	341	0.516	94

)

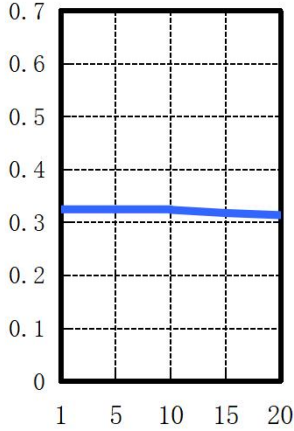
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Chase SAE J-661 Friction Material Test Report

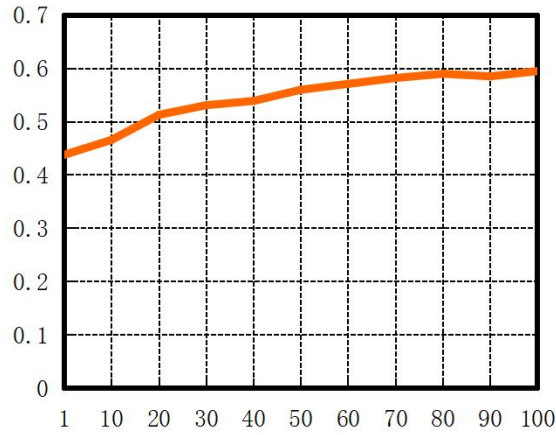
Manufacturer: Ketullabrades
Material: Ceramic
Test Pressure: 150 psi

20230.05.18
XTC

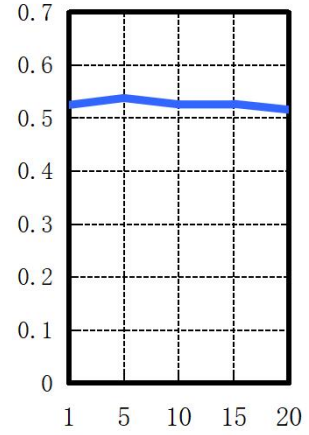
Initial Baseline



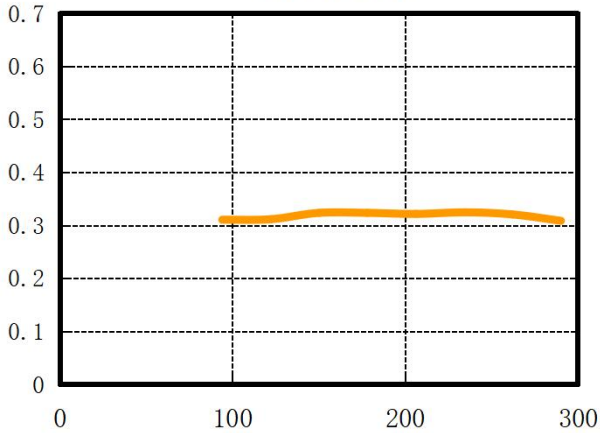
Wear Test



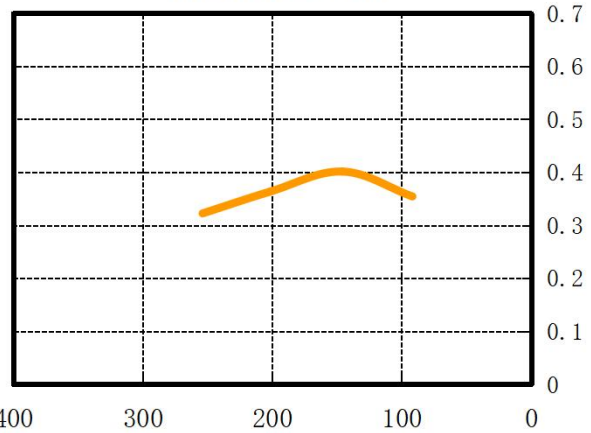
Final Baseline



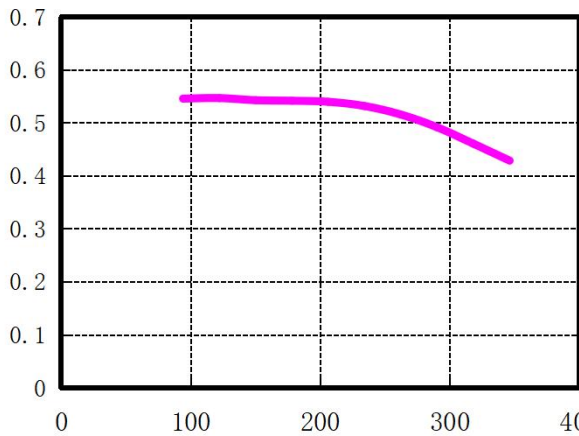
First Fade



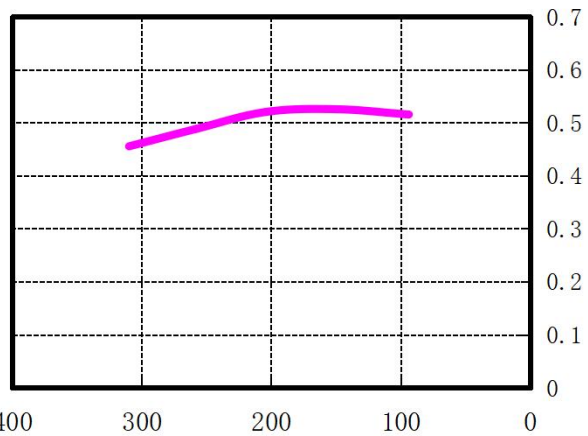
First Recovery



Second Fade



Second Recovery



661	215	87	0.325	baseline	1
661	216	89	0.326	baseline	2
660	215	86	0.326	baseline	3
662	215	90	0.324	baseline	4
660	214	86	0.325	baseline	5
660	214	89	0.323	baseline	6
660	215	88	0.326	baseline	7
659	216	89	0.328	baseline	8
659	215	87	0.327	baseline	9
660	214	88	0.324	baseline	10
659	213	88	0.323	baseline	11
659	213	88	0.323	baseline	12
660	212	88	0.32	baseline	13
661	211	89	0.32	baseline	14
659	210	88	0.318	baseline	15
660	208	88	0.316	baseline	16
658	209	88	0.317	baseline	17
660	207	88	0.315	baseline	18
659	206	89	0.312	baseline	19
660	207	86	0.314	baseline	20
660	205	94	0.311	FirstFade	1
660	206	122	0.312	FirstFade	2
661	214	150	0.324	FirstFade	3
660	214	178	0.324	FirstFade	4
662	213	206	0.322	FirstFade	5
660	214	235	0.325	FirstFade	6
660	212	262	0.321	FirstFade	7
660	204	290	0.309	FirstFade	8
660	213	254	0.323	FirstRecovery	1
659	240	202	0.364	FirstRecovery	2
660	266	146	0.402	FirstRecovery	3
660	234	92	0.355	FirstRecovery	4
661	290	216	0.438	wear	1
659	296	206	0.449	wear	2
661	296	208	0.447	wear	3
660	294	214	0.445	wear	4
660	289	206	0.438	wear	5
660	295	209	0.447	wear	6
661	296	212	0.449	wear	7
658	301	204	0.457	wear	8
660	309	210	0.468	wear	9
659	307	211	0.466	wear	10

661	316	204	0.479	wear	11
659	319	210	0.483	wear	12
660	316	211	0.478	wear	13
660	320	203	0.485	wear	14
660	324	210	0.49	wear	15
660	325	210	0.492	wear	16
660	331	203	0.502	wear	17
661	334	211	0.505	wear	18
660	329	213	0.499	wear	19
659	338	204	0.513	wear	20
659	339	212	0.514	wear	21
659	340	212	0.515	wear	22
660	340	204	0.516	wear	23
660	343	211	0.519	wear	24
660	344	212	0.521	wear	25
660	349	204	0.529	wear	26
661	348	211	0.526	wear	27
660	349	212	0.528	wear	28
661	352	204	0.532	wear	29
660	350	212	0.531	wear	30
660	351	212	0.532	wear	31
659	352	204	0.535	wear	32
658	346	212	0.525	wear	33
660	354	213	0.536	wear	34
660	359	206	0.544	wear	35
660	354	212	0.536	wear	36
659	357	212	0.541	wear	37
660	355	214	0.538	wear	38
660	362	206	0.548	wear	39
660	355	212	0.539	wear	40
658	360	212	0.547	wear	41
659	363	204	0.551	wear	42
660	364	212	0.552	wear	43
661	366	212	0.555	wear	44
659	369	204	0.56	wear	45
659	364	213	0.552	wear	46
660	367	214	0.556	wear	47
660	368	204	0.558	wear	48
660	365	213	0.553	wear	49
660	370	213	0.56	wear	50
661	369	204	0.558	wear	51
660	375	213	0.568	wear	52

659	372	213	0.564	wear	53
661	376	205	0.569	wear	54
660	370	213	0.561	wear	55
659	374	214	0.567	wear	56
658	376	205	0.572	wear	57
661	377	214	0.57	wear	58
660	377	214	0.571	wear	59
661	377	205	0.571	wear	60
658	381	214	0.578	wear	61
661	380	214	0.575	wear	62
661	385	204	0.583	wear	63
660	383	213	0.58	wear	64
661	380	215	0.576	wear	65
658	382	204	0.581	wear	66
659	382	215	0.579	wear	67
660	386	215	0.585	wear	68
660	380	206	0.575	wear	69
661	385	214	0.582	wear	70
659	383	214	0.581	wear	71
661	384	206	0.581	wear	72
661	381	213	0.577	wear	73
662	381	214	0.575	wear	74
660	389	206	0.59	wear	75
660	390	214	0.592	wear	76
662	391	214	0.591	wear	77
662	390	204	0.59	wear	78
661	395	214	0.597	wear	79
661	390	214	0.59	wear	80
660	392	204	0.593	wear	81
660	394	214	0.596	wear	82
660	386	214	0.584	wear	83
660	387	205	0.587	wear	84
661	386	212	0.584	wear	85
659	384	212	0.583	wear	86
660	384	204	0.582	wear	87
661	388	213	0.587	wear	88
659	391	214	0.594	wear	89
660	386	205	0.585	wear	90
661	391	214	0.592	wear	91
660	392	215	0.594	wear	92
660	397	206	0.602	wear	93
661	390	214	0.591	wear	94

660	394	214	0.596	wear	95
659	397	205	0.603	wear	96
659	391	212	0.593	wear	97
661	393	214	0.595	wear	98
661	396	205	0.6	wear	99
660	393	214	0.595	wear	100
659	360	94	0.546	SecondFade	1
660	361	122	0.547	SecondFade	2
660	358	150	0.543	SecondFade	3
659	357	178	0.542	SecondFade	4
659	356	206	0.54	SecondFade	5
660	351	234	0.532	SecondFade	6
660	341	262	0.516	SecondFade	7
660	324	290	0.492	SecondFade	8
661	305	318	0.461	SecondFade	9
660	283	346	0.429	SecondFade	10
660	301	310	0.456	Sec.Recovery	1
660	323	258	0.489	Sec.Recovery	2
660	344	204	0.521	Sec.Recovery	3
658	347	150	0.526	Sec.Recovery	4
661	341	94	0.516	Sec.Recovery	5
660	347	94	0.525	Sec.BaseLine	1
660	352	92	0.533	Sec.BaseLine	2
659	356	90	0.539	Sec.BaseLine	3
658	354	90	0.538	Sec.BaseLine	4
659	354	90	0.538	Sec.BaseLine	5
659	352	90	0.534	Sec.BaseLine	6
659	352	90	0.534	Sec.BaseLine	7
659	347	90	0.527	Sec.BaseLine	8
660	350	90	0.53	Sec.BaseLine	9
659	347	90	0.526	Sec.BaseLine	10
660	347	91	0.526	Sec.BaseLine	11
658	351	91	0.533	Sec.BaseLine	12
658	353	90	0.536	Sec.BaseLine	13
659	353	90	0.535	Sec.BaseLine	14
660	348	90	0.527	Sec.BaseLine	15
660	347	90	0.526	Sec.BaseLine	16
661	347	90	0.525	Sec.BaseLine	17
660	345	90	0.522	Sec.BaseLine	18
660	341	91	0.517	Sec.BaseLine	19
659	340	90	0.516	Sec.BaseLine	20
258.1713	4	18	4:18	Time1	

269.3897	4	29	4:29	Time2
8				Fst.FadeTm
10				Sec.FadeTm
日照中伟				Manuf.
XTC				SerNO.
陶瓷				Metrial
2021/3/24				Date
P	F	T	u	

SAE J661 Friction Material Test Report

Manufacturer	Ketullabrades	Test NO.	XTC
Material	Ceramic	Date	2023.05.18

Wear Data	Initial	Final	Loss	%Loss
Weight(g)	8.53	8.49	0.04	0.5
Thickness(mm)	6.8	6.74	0.06	0.9

Classification

μ Class

Normal	0.544	G
Heat	0.473	G

First Base Line

411r/min
150lib

CYCL	T(°C)	F(N)	μ
1	87	215	0.32
5	86	214	0.32
10	88	214	0.32
15	88	210	0.32
20	86	207	0.31

First Fade

411 r/min, 150lib
heat to 288°C in 10 min

T(°C)	F(N)	μ
94	205	0.31
122	206	0.31
150	214	0.32
178	214	0.32
206	213	0.32
235	214	0.32
262	212	0.32
290	204	0.31

Time: 258.2 s

First Recovery

150lb, 408r/min

T(°C)	F(N)	μ
254	213	0.323
202	240	0.364
146	266	0.402
92	234	0.355

Wear Test

CYCL	T(°C)	F(N)	μ
1	216	290	0.438
10	211	307	0.466
20	204	338	0.513
30	212	350	0.531
40	212	355	0.539
50	213	370	0.56
60	205	377	0.571
70	214	385	0.582
80	214	390	0.59
90	205	386	0.585
100	214	393	0.595

Second Base Line

411r/min
150lib

CYCL	T(°C)	F(N)	μ
1	94	347	0.525
5	90	354	0.538
10	90	347	0.526
15	90	348	0.527
20	90	340	0.516

Second Fade

411 r/min, 150lib
heat to 343°C in 10 min

T(°C)	F(N)	μ
94	360	0.546
122	361	0.547
150	358	0.543
178	357	0.542
206	356	0.54
234	351	0.532
262	341	0.516
290	324	0.492
318	305	0.461
346	283	0.429

Time: 269.4 s

Second Recovery

150lb, 408r/min

T(°C)	F(N)	μ
310	301	0.456
258	323	0.489
204	344	0.521
150	347	0.526
94	341	0.516