



Physical Properties Test Report

Link Test Report: 113063-2-1
Test Description: SAE J661 Rev Oct 2021 Brake Lining Quality Test
Purpose of Test: To Evaluate the Characteristics of Brake Materials
Material Identification: SBD-C101
Test Date: 03/10/2026 - 03/11/2026

Requested By:

**Speed By Design
Chris Riggs
15031 SE 44th Street, Building 2
OK ,73020
United States**

Report Approved by:

A handwritten signature in black ink, appearing to read "Radosław Maziewski".

Laboratory Manager

Issue Date: 03/13/2026



LINK Engineering Company
Dearborn Technical Center
401 Southfield Road
Dearborn, MI 48120
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Phone: (313) 625-4000

SAE J661 Rev Oct 2021 Brake Lining Quality Test

Test Information

Customer Name	Speed By Design
Requestor	Chris Riggs
Program Number	113063-2-1
Test Coordinator	Regina Cortes
Test Equipment	Chase Machine 12
Test Dates	03/10/2026 - 03/11/2026
Datalogger	v1.0.21
Template Version	1.83

Setup Details

Sample Material	SBD-C101
Sample Size	1 inch x 1 inch
Sample Manufacturer	Speed By Design
Test Pressure	150 psi

Sample Test Summary

Normal Friction Coefficient	0.512	Pass
Normal Friction Class	G	
Hot Friction Coefficient	0.525	Pass
Hot Friction Class	G	
Minimum Bold Coefficient	0.407	Pass
Max Variation Below Average for Bold Readings	0.055	Pass
Max % Variation for Bold Readings	9.84%	Pass

Pass / Fail

Pass

Comments:

Authorized by: Regina Cortes
(313) 625-4000

Title: Test Engineer

Issue Date: 03/13/2026

Data applicable to the materials tested and parameters agreed to by customer. Valid if signed by the test engineer. Report can be copied in full. Uncertainty of Measurement details are available upon request.

Test Number					
Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	
113063-2-1	113063-2-2	113063-2-3	113063-2-4	113063-2-5	

Manufacturer:
Speed By Design

Initial Baseline					
Application	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
1	0.364	0.350	0.364	0.340	0.369
20	0.377	0.429	0.405	0.374	0.460

Material:
SBD-C101

Normal **0.512** **G**

First Fade					
Temp (°F)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
200.0	0.375	0.417	0.399	0.360	0.450
550.0	0.406	0.284	0.457	0.422	0.331

(or Temp @ 10min)

Hot **0.525** **G**

First Recovery						
Temp (°F)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Average
500.0	0.463	0.364	0.478	0.466	0.388	0.432
400.0	0.480	0.418	0.503	0.483	0.477	0.472
300.0	0.449	0.415	0.456	0.452	0.475	0.449
200.0	0.399	0.397	0.429	0.425	0.460	0.422

Norm/Hot

Hot
Hot

Wear					
Application	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
1	0.475	0.455	0.467	0.461	0.495
100	0.549	0.612	0.593	0.582	0.626

Second Fade							Max Var.		
Temp (°F)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Average	< Average	Norm/Hot	% Var
200.0	0.414	0.482	0.438	0.451	0.488	0.455	0.041	Normal	9%
250.0	0.457	0.488	0.472	0.472	0.511	0.480	0.023	Normal	5%
300.0	0.513	0.520	0.501	0.510	0.542	0.517	0.016	Normal	3%
350.0	0.562	0.573	0.543	0.546	0.574	0.560	0.017	-	3%
400.0	0.590	0.608	0.582	0.577	0.622	0.596	0.019	Normal	3%
450.0	0.576	0.608	0.603	0.590	0.630	0.601	0.025	Hot	4%
500.0	0.541	0.602	0.594	0.565	0.628	0.586	0.045	Hot	8%
550.0	0.500	0.554	0.569	0.550	0.600	0.555	0.055	Hot	10%
600.0	0.475	0.496	0.533	0.510	0.543	0.511	0.036	Hot	7%
650.0	0.447	0.478	0.497	0.466	0.502	0.478	0.031	Hot	6%

(or Temp @ 10min)

Second Recovery							Max Var.		
Temp (°F)	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Average	< Average	Norm/Hot	% Var
600.0	0.509	0.509	0.512	0.506	0.564	0.520	0.014	-	3%
500.0	0.550	0.555	0.546	0.519	0.594	0.553	0.034	Hot	6%
400.0	0.549	0.547	0.531	0.515	0.594	0.547	0.032	Hot	6%
300.0	0.498	0.501	0.483	0.455	0.534	0.494	0.039	Hot	8%
200.0	0.446	0.454	0.432	0.407	0.480	0.444	0.037	-	8%

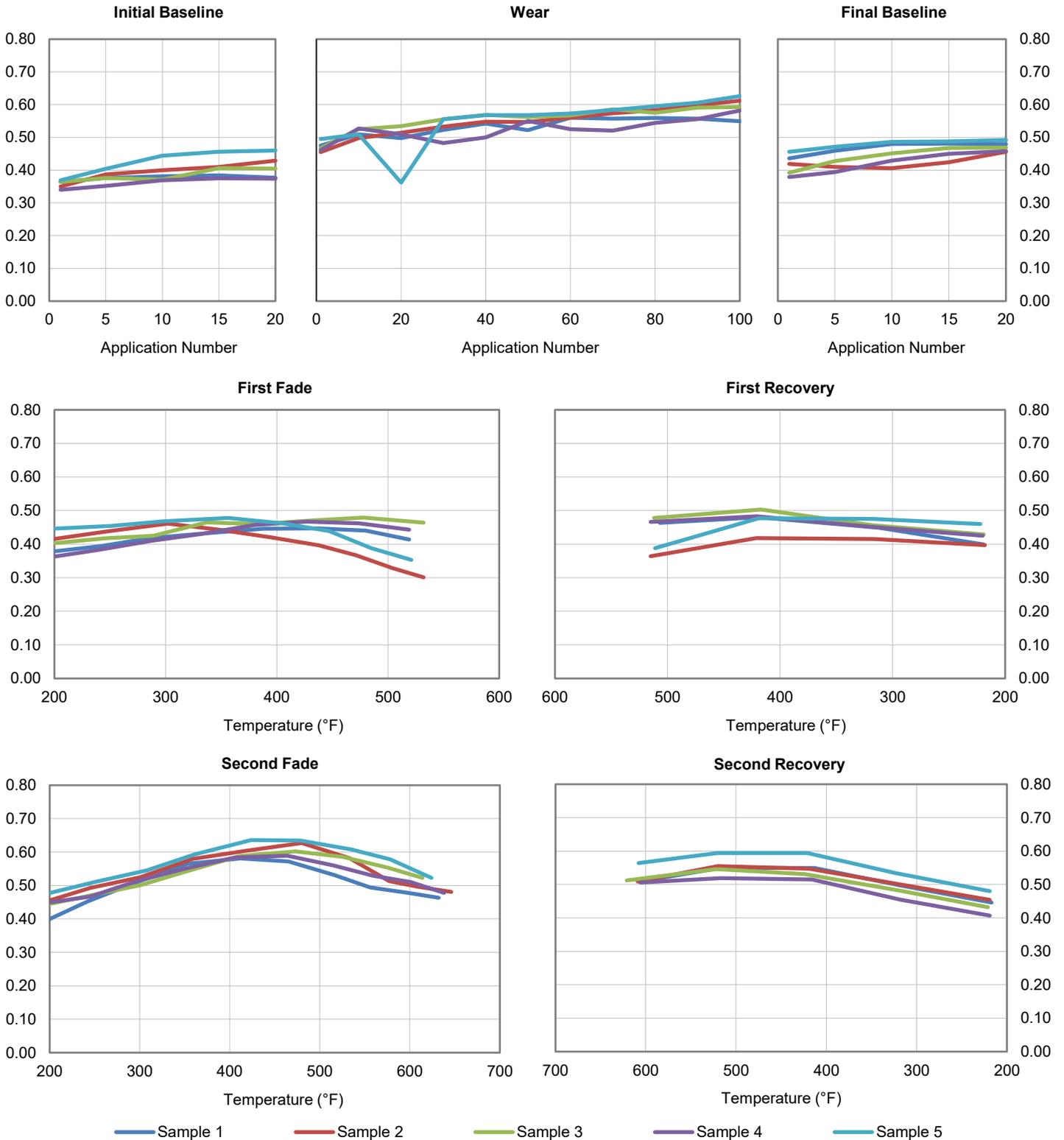
Final Baseline					
Application	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
1	0.436	0.419	0.392	0.379	0.456
20	0.479	0.456	0.469	0.458	0.492

Manufacturer: Speed By Design
Material: SBD-C101
Test Pressure: 150 psi

Test Dates: 03/10/2026 - 03/11/2026

Summary of 5 Samples

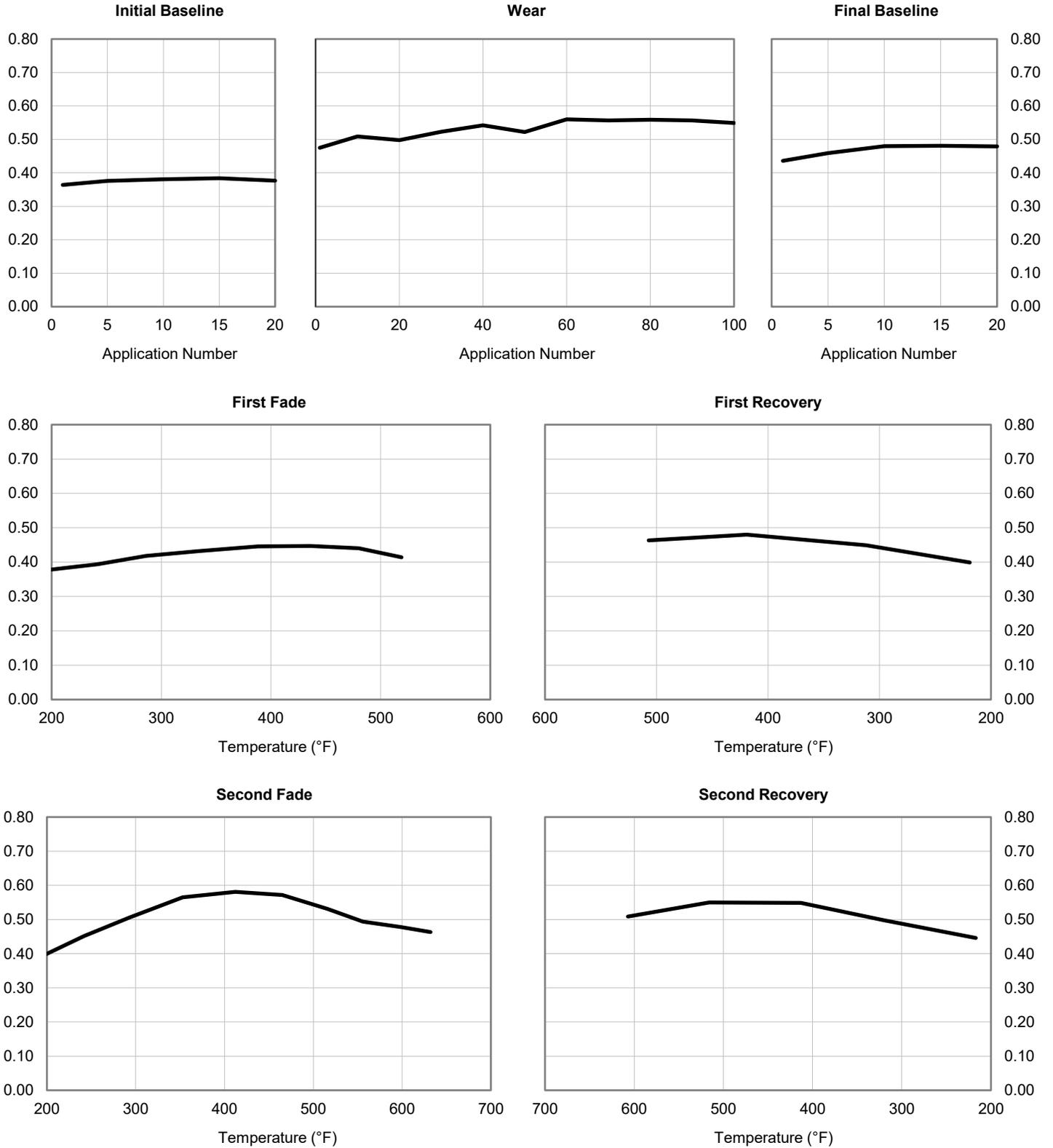
Coefficient of Friction



Manufacturer: Speed By Design
Material: SBD-C101
Test Pressure: 150 psi

3/10/2026
113063-2-1
Sample 1 of 5

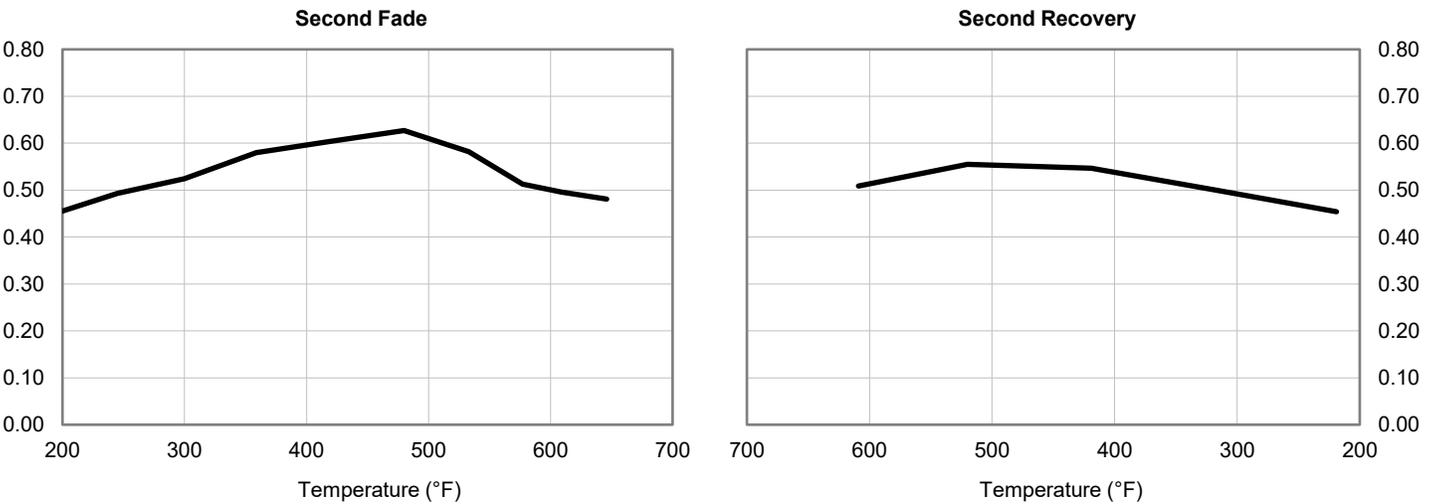
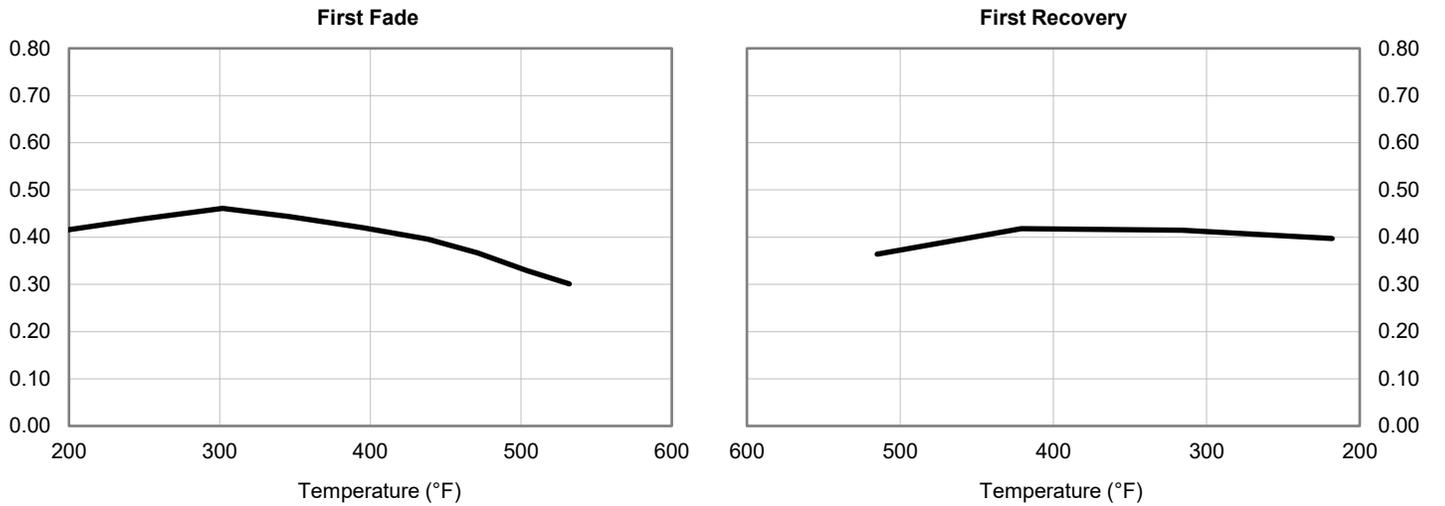
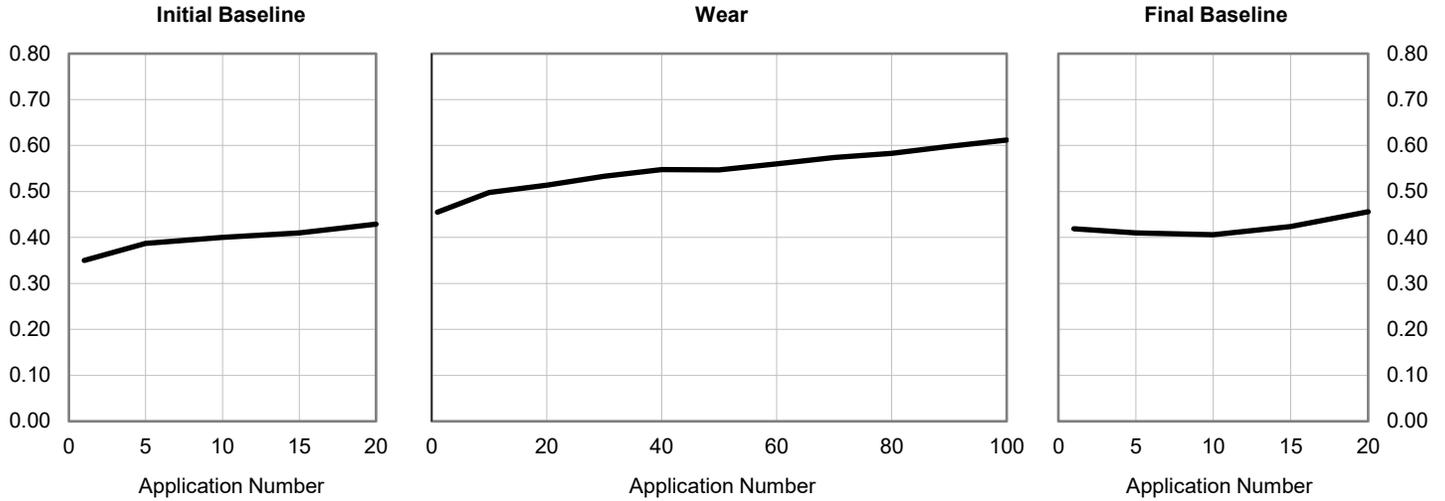
Coefficient of Friction



Manufacturer: Speed By Design
Material: SBD-C101
Test Pressure: 150 psi

3/10/2026
113063-2-2
Sample 2 of 5

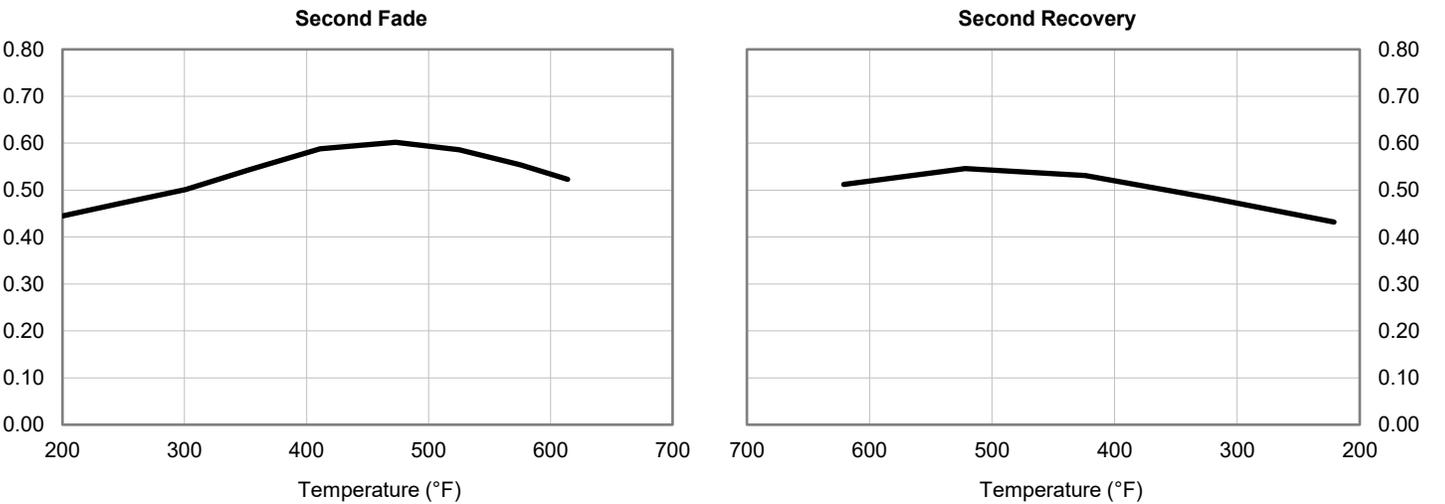
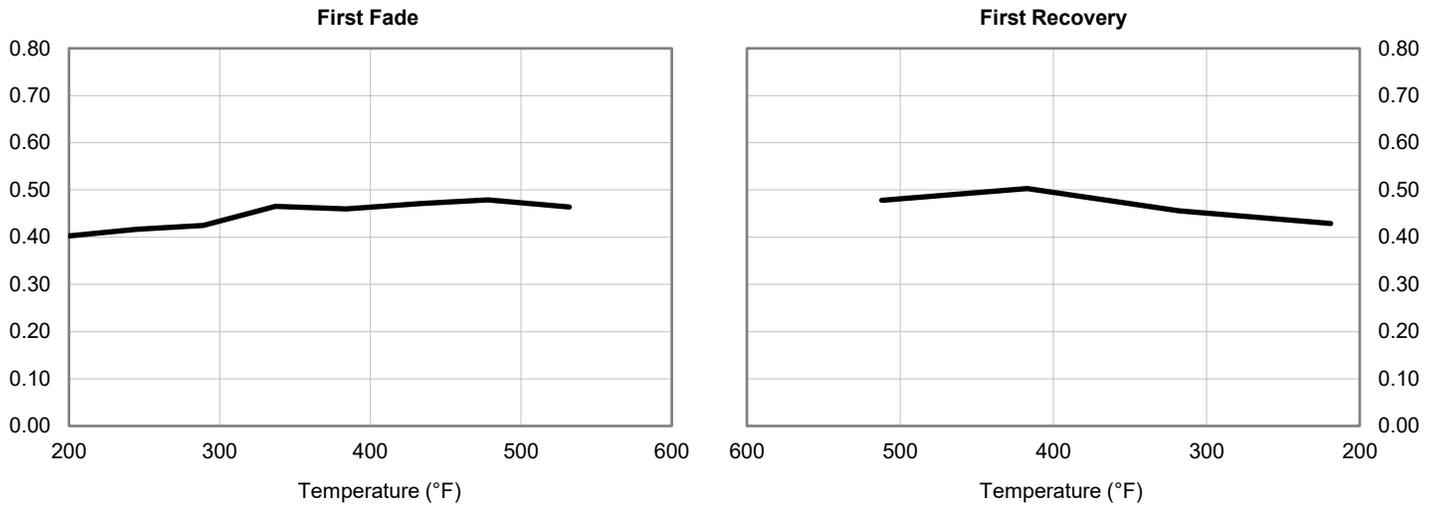
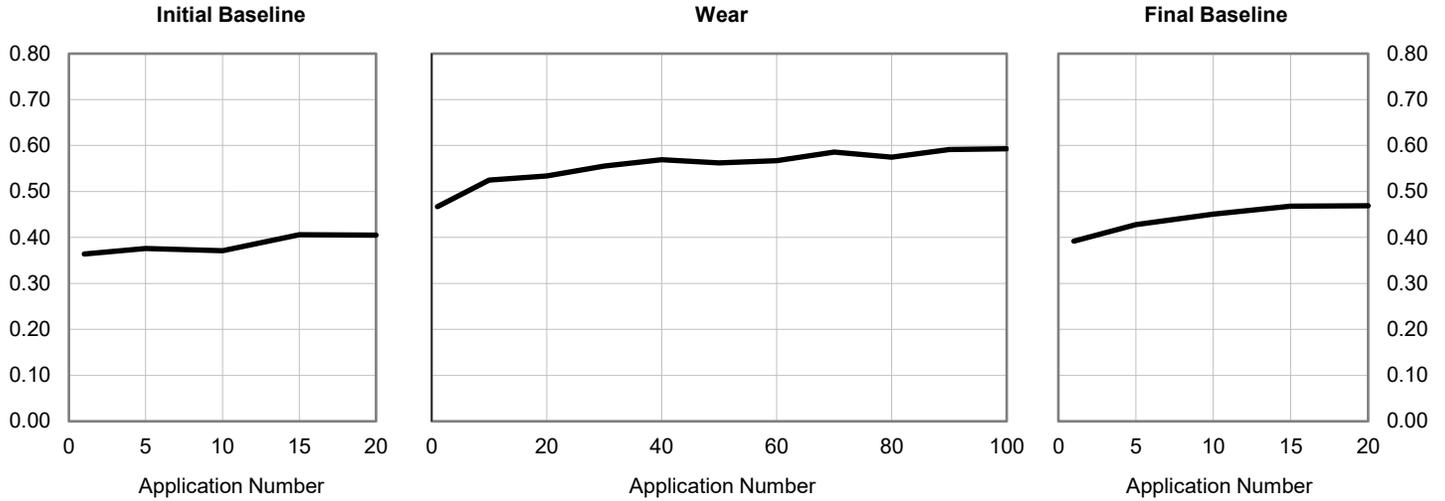
Coefficient of Friction



Manufacturer: Speed By Design
Material: SBD-C101
Test Pressure: 150 psi

3/11/2026
113063-2-3
Sample 3 of 5

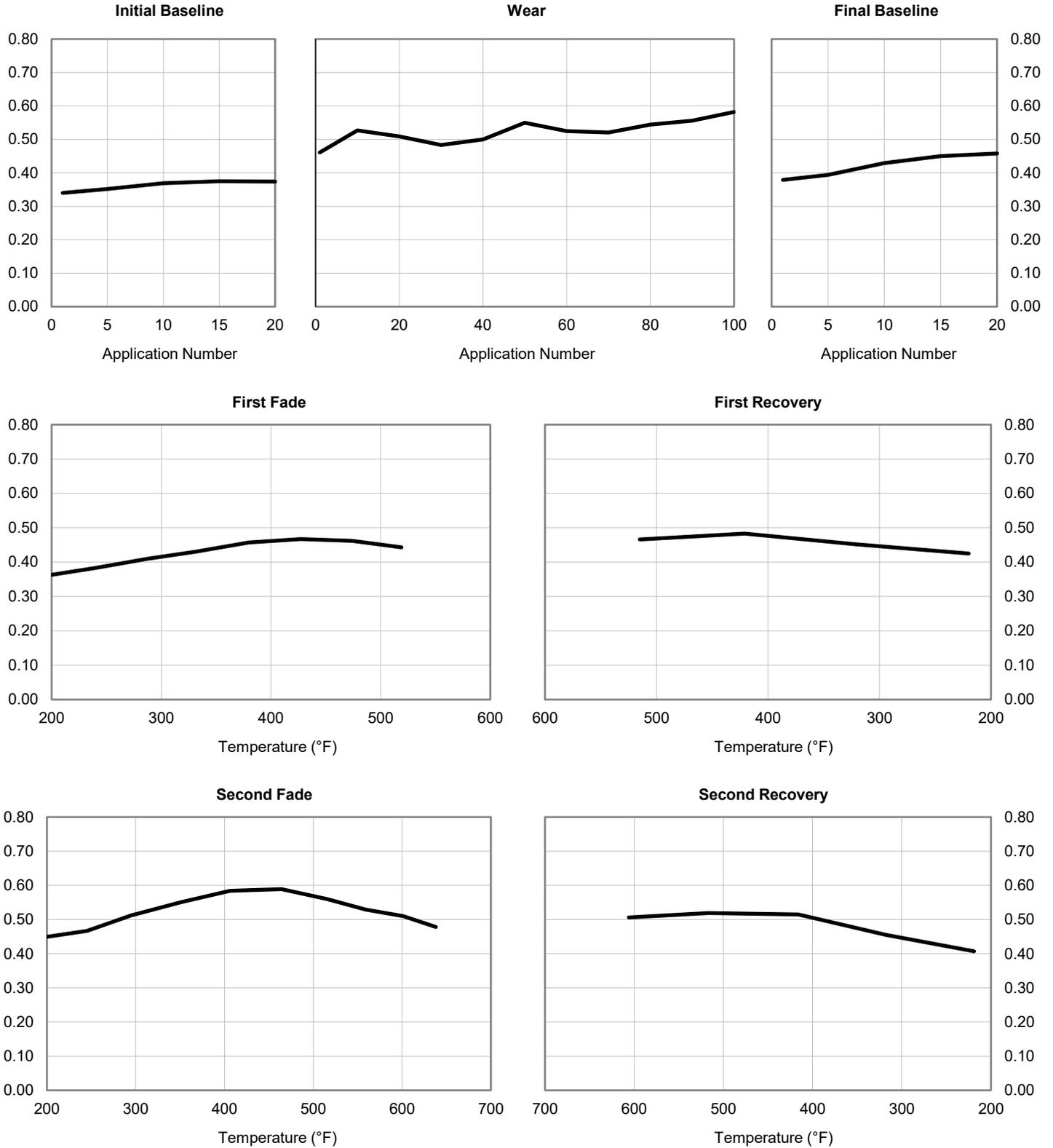
Coefficient of Friction



Manufacturer: Speed By Design
Material: SBD-C101
Test Pressure: 150 psi

3/11/2026
113063-2-4
Sample 4 of 5

Coefficient of Friction



Manufacturer: Speed By Design
Material: SBD-C101
Test Pressure: 150 psi

3/11/2026
113063-2-5
Sample 5 of 5

Coefficient of Friction

