

Steel Fiber Specification

STD1-80

Reference specification for steel fiber used in brake pads and friction material formulations.

Document No. TDS-STD1-80 | Revision 01

GRADE TYPE

Steel Fiber

Friction material grade

TAP DENSITY

0.80-1.10

mL/g

FIBER WIDTH

0.0360-0.0598

mm

PAN FRACTION

50.0-70.0

wt%

01

Chemical Properties

Test Name	Unit	Specification
C (Carbon)	wt%	0.07-0.12
Si (Silicon)	wt%	Max. 0.07
Mn (Manganese)	wt%	0.80-1.25
P (Phosphorus)	wt%	Max. 0.03
S (Sulfur)	wt%	Max. 0.03

02

Physical Properties

Test Name	Unit	Specification
Tap Density	mL/g	0.80-1.10
Oil Content	wt%	Max. 0.30

03

Fiber Width

Test Name	Unit	Specification
Fiber Width	mm	0.0360-0.0598

04

Particle Size Distribution

Particle Size	Unit	Specification
+14 mesh	wt%	0.00-0.50
+20 mesh	wt%	0.0-1.0
+40 mesh	wt%	2.0-12.0
+70 mesh	wt%	14.0-25.0
+100 mesh	wt%	5.0-25.0
PAN	wt%	50.0-70.0

Product Description

Porous steel fiber with controlled sieve distribution and fiber width, developed for consistent dispersion in friction formulations.

05

Advantages & Benefits

- Low apparent density
- High internal porosity
- Large specific surface area
- Supports lower brake component weight and reduced material usage
- Helps improve braking surface consistency and pad/rotor wear performance
- Supports noise reduction in friction material formulations

Note: The above values are specification ranges for general reference. Batch-specific COA and customized requirements are available upon request.