

# AIR DISC BRAKE MATERIAL SPECIFICATIONS

## AUTOMANN “FS” AIR DISC BRAKE MATERIAL

Bulletin# 012319

DATE: 01-23-19

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- Automann “FS” (fleet standard) air disc brake pads are formulated for typical line haul service and can be used on vehicles in combination with 20,000-lb or 23,000-lb rated drum brake materials.
- The back plates are blanked from a high grade of hot-rolled, pickled and oiled steel to resist corrosion.
- The pad retention system is the long-time proven mechanical attachment method of wire mesh welded to the steel back plate combined with a special, high strength under layer to insure a secure bond for the life of the pad.
- The friction material itself is integrally molded to the under layer.
- The “FS” formulation has a long history of use in Europe and has been ECE R-90 performance certified. This material offers consistent service and good wear characteristics.
- Each axle set of disc brake pads comes packaged with the hardware needed to complete a first class brake job.

Parameter	Specification	Test Method
Specific Gravity	2.30 – 2.70	SAE J380 and IS 2742:1994 PART 3 – 5.1
Rockwell Hardness	L Scale 60 – 110	IS 2742:1994 PART 3 – 5.2 & ISO 2039 – 2:1987 (E)
Cold Bond Shear	40 Kgf/cm <sup>2</sup> Min	ISO 6312
Hot Bond Shear @ 300°C	30 Kgf/cm <sup>2</sup> Min	ISO 6312
Cold Compressibility	Deflection 2% Max	ISO 6310
Hot Compressibility @ 400°C	Deflection 5% Max	ISO 6310
Swell	0.10 mm Max 0.10 mm Max	SAE J160, Method A (Hot Plate Method) SAE J160, Method B (Oven Method)
Growth	0.10 mm Max 0.10 mm Max	SAE J160, Method A (Hot Plate Method) SAE J160, Method B (Oven Method)
Acetone Extraction	1.50% Max	ASTM D494 – 11
Loss On Ignition	25.00% Max	IS 2742:1994 PART 3 – 5.7
pH	>9.00	JASO C458-86
Corrosion Resistance	No corrosion between pad and back plate	ISO 6314
Chase Test Normal $\mu$	F (0.35 – 0.45)	SAE J661:2012
Chase Test Hot $\mu$	F (0.35 – 0.45)	SAE J661:2012

# AIR DISC BRAKE MATERIAL SPECIFICATIONS

## AUTOMANN “SD” AIR DISC BRAKE MATERIAL

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- Automann “SD” (severe duty) air disc brake pads are formulated for demanding service and can be used on vehicles in combination with 20,000-lb or 23,000-lb rated drum brake materials.
- The back plates are blanked from a high grade of hot-rolled, pickled and oiled steel to resist corrosion.
- The pad retention system is the long-time proven mechanical attachment method of wire mesh welded to the steel back plate combined with a special, high strength under layer to insure a secure bond for the life of the pad.
- The friction material itself is integrally molded to the under layer.
- The “SD” formulation has a long history of use in Europe and has been ECE R-90 performance certified. This material offers consistent service in demanding applications and good wear characteristics.
- Each axle set of disc brake pads comes packaged with the hardware needed to complete a first class brake job.

Parameter	Specification	Test Method
Specific Gravity	2.40 – 2.70	SAE J380 and IS 2742:1994 PART 3 – 5.1
Rockwell Hardness	L Scale 70 – 120	IS 2742:1994 PART 3 – 5.2 & ISO 2039 – 2:1987 (E)
Cold Bond Shear	40 Kgf/cm <sup>2</sup> Min	ISO 6312
Hot Bond Shear @ 300°C	30 Kgf/cm <sup>2</sup> Min	ISO 6312
Cold Compressibility	Deflection 2% Max	ISO 6310
Hot Compressibility @ 400°C	Deflection 5% Max	ISO 6310
Swell	0.10 mm Max 0.10 mm Max	SAE J160, Method A (Hot Plate Method) SAE J160, Method B (Oven Method)
Growth	0.10 mm Max 0.10 mm Max	SAE J160, Method A (Hot Plate Method) SAE J160, Method B (Oven Method)
Acetone Extraction	2.00% Max	ASTM D494 – 11
Loss On Ignition	35.00% Max	IS 2742:1994 PART 3 – 5.7
pH	>9.00	JASO C458-86
Corrosion Resistance	No corrosion between pad and back plate	ISO 6314
Chase Test Normal $\mu$	G (0.45 – 0.55)	SAE J661:2012
Chase Test Hot $\mu$	G (0.45 – 0.55)	SAE J661:2012