



Marathon's Fleet Star FS20 lining is a premium quality material designed to deliver dependable stopping power with a long lining life. Ideal for over-the-road freight, general hauling and other standard heavy-duty vocations that do not require a severe service lining. With excellent stopping power and resistance to fading, FS20 meets Federal regulations in accordance with FMVSS 121 test procedure and is rated for 20,000 lb axle loads.

FS20 linings feature the Hi-Density Marathon formulation (detailed at right) that will improve your bottom line through better performance and fewer maintenance headaches.

## FS20 Delivers

- Hi-Density formulation for excellent heat dissipation
- Dependable stopping performance
- Excellent brake fade and recovery characteristics
- Works on a broad range of over-the road hauling applications
- Extremely drum friendly

## **Hi-Density Friction**

One of the most significant design characteristics of any heavy duty brake lining is its density. When higher quality and heavier raw materials are used in a lining's formulation, it creates a higher mass in the block or stated another way, higher density. Truck brakes are designed to convert the energy of a moving vehicle into heat energy. A higher density increases the lining's ability to efficiently handle heat, and is the most critical component in a friction material's fade, recovery and wear.

- Higher density friction materials have the ability to hold more heat energy and therefore more efficiently dissipate the heat
- Higher density friction materials have stronger structural integrity, making them less likely to crack in service, while riveting or due to rust jacking
- Higher density linings exhibit significantly better wear characteristics, especially at higher temperatures
- Higher density friction materials are more resistant to brake fade and water fade

## **FMVSS 121 Test Results**

120 110

100

90

70 Pressure

60

50

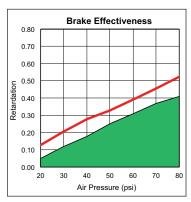
40

30 20

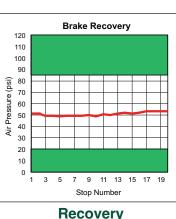
10

(psi) 80

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Retardation



**Fade** Testing conducted in accordance with F.M.V.S.S. #121 criteria @ 20,000# axle load: 16 1/2 x 7" S-cam air brake; 30 x 5.5 input power; and a 20.8" tire rolling radius. Shaded area indicates non-compliance.

5 6 7

Snub Number

**Brake Power** 







The Marathon Advantage... Feel the Difference

