

## FS23 Fleet Star® 23

Marathon created FS23 for fleet operators looking for a premium quality friction material to use on applications like liquid tanker, grain, cement or standard duty refuse, as well as general over-the-road hauling. FS23 delivers dependable stopping power with excellent wear characteristics and is a formulation that easily meets Federal regulations in accordance with FMVSS 121 test procedure and is rated for 23,000 lb axle loads.

FS23 linings feature the Hi-Density Marathon formulation (detailed at right) that will improve your bottom line through better performance and fewer maintenance headaches.

#### **FS23 Delivers**

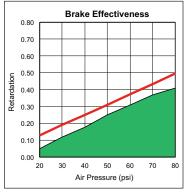
- Ideal for general freight hauling and most 23,000 lb. GAWR applications
- Hi-Density formulation for effective heat dissipation
- Excellent brake fade and recovery characteristics
- Dependable stopping performance
- Extremely drum friendly

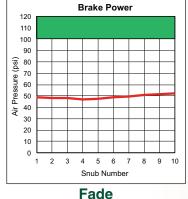
### **Hi-Density Friction**

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.

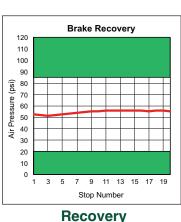
- Higher density friction materials have the ability to hold more heat energy and therefore more efficiently dissipate the heat
- Higher density friction materials have stronger structural integrity, making them less likely to crack in service, while riveting or due to rust jacking
- Higher density linings 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**





#### Retardation



Testing conducted in accordance with F.M.V.S.S. #121 criteria @ 23,000# axle load: 16  $1/2 \times 7$ " S-cam air brake; 30 x 5.5 input power; and a 19.6" tire rolling radius. Shaded area indicates non-compliance.





# See the difference... higher density Marathon linings tip the scale vs. leading competitor

The Marathon Advantage...
Feel the Difference

