

# TIRE INFORMATION SERVICE BULLETIN

## NOISE REDUCTION ACOUSTIC FOAM TIRES

### Introduction and Purpose

There is increasing use among global OE vehicle manufacturers of a tire-type classified as "Noise Reduction". These tires have some type of acoustic foam attached to the tire innerliner for the purpose of reducing the tire noise transmitted to the passenger compartment. The tires will typically be marked with a manufacturers' symbol on the tire sidewall indicating this feature.

This bulletin contains instructions to address the acoustic foam during the tire repair process and tire replacement recommendations. For complete details on proper repair methods, consult USTMA documents<sup>1,2</sup> or your tire manufacturer.

### Tire Repair

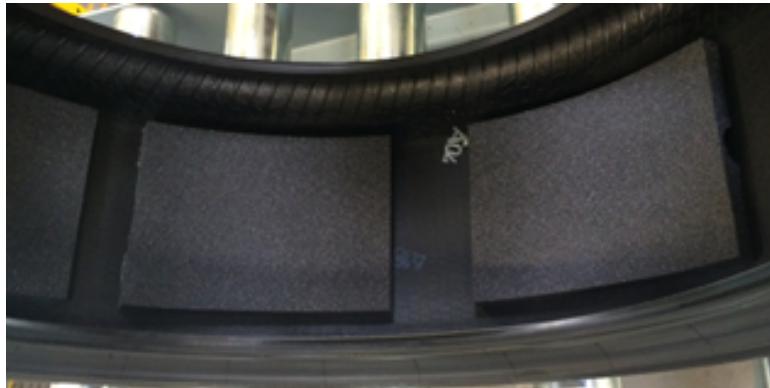
The recommended tire repair procedures generally follow the standard tire repair methods as described in the USTMA wall poster "Puncture Repair Procedures for Passenger and Light Truck Tires".<sup>1</sup> In addition, the tire manufacturers' guidelines for allowable tire repair must be followed. An outline of the recommended steps is as follows:

1. Remove the tire from the wheel for inspection and repair
2. Carefully remove the acoustic foam from the injury area so as not to damage the innerliner. The amount of acoustic foam removed shall be sufficient to allow for the preparation of the innerliner for repair. The tire manufacturer should be contacted for detailed directions on how to remove the acoustic foam.
3. Prepare the injury area by cleaning and buffering the innerliner.
4. Fill the injury with a suitable vulcanizing material or rubber stem that must fill the injury and keep moisture out.
5. Seal the innerliner with a patch to prevent loss of inflation pressure and keep moisture out.
6. Reinspect the finished repair
7. Discard the removed piece of acoustic foam. It is not necessary to replace it in the tire.
8. For more specific details on tire repair, consult the tire manufacturer.

### Replacement Recommendations

Follow OE manufacturers' recommendation for specific replacement guidelines. To maintain the passenger compartment reduced noise level, it is generally recommended to replace a Noise Reduction tire with a Noise Reduction tire. If no Noise Reduction tire is available, it is acceptable to replace with a conventional tire meeting the OE vehicle placard specification.

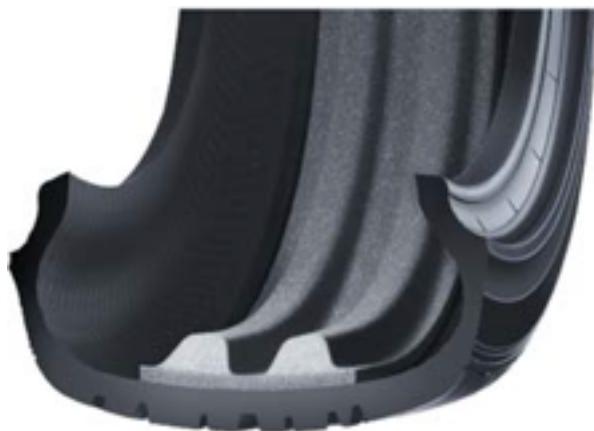
### Examples of Typical Configurations of Acoustic Foam Inserts



**Figure 1**



**Figure 2**



**Figure 3**



**Figure 4**

#### End Notes:

1 Refer to the USTMA wall poster "Puncture Repair Procedures for Passenger and Light Truck Tires"

2 Refer to the USTMA manual "Care and Service of Passenger and Light Truck Tires"