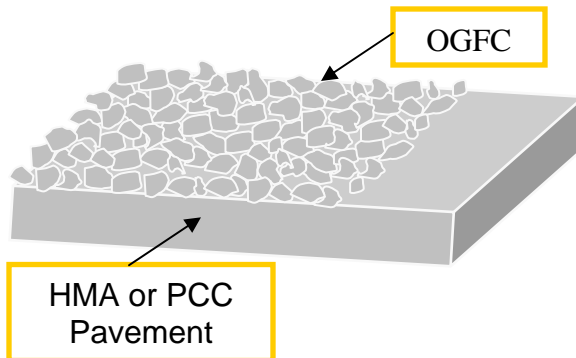


South Carolina Rubber-Modified Open Graded Friction Course (R-M OGFC)*

Summary

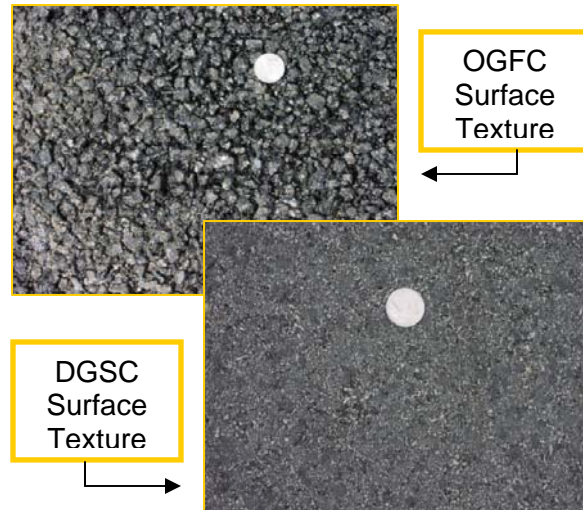
- Rate of Placement: 3/4 to 1 inch thick
- Rubber Content: 12% by weight of the liquid asphalt (0.85% by weight of the mix)
- Rubber Type: Ambient Crumb, #40 mesh
- Tires Used: 400 to 500 tires per lane-mile of pavement
- Advantages
 - Decreased noise levels
 - Decreased surface water during rainy weather
 - Increased safety due to reduced skidding
 - Lower cost than conventional OGFC using polymer-modified asphalt
 - Beneficially utilizes waste tires



- Disadvantages
 - Lack of public awareness (general public, contractors, and public officials)
 - Lack of access to specifications

Open graded friction course (OGFC) is a type of asphalt wearing course with a higher amount of air voids than regular asphalt dense graded surface course (DGSC). Typically, it is used on high-traffic roadways to decrease traffic noise, increase surface friction, aid surface water drainage, and decrease water spray from the pavement in rainy weather. OGFC can be placed on either asphalt or concrete pavements, and it consists of roughly 93% crushed stone, 7% modified asphalt binder, and a small amount of stabilizing fibers.

Modified asphalt cement binder is required in this type of mix to prevent draindown of the binder and achieve the necessary level of adhesion and mix stability. Although typically a polymer is used as the modifying additive to the asphalt cement binder, crumb rubber made from scrap tires may also be used as an alternative modifier.



Rubber-modified open graded friction course (R-M OGFC) has all the same advantages as polymer-modified OGFC. Compared to concrete and standard asphalt dense graded pavements, it has significantly lower noise levels, it has less surface water in wet weather, and it is generally safer in wet weather due to the better visibility and decreased hydroplaning resulting from the lack of surface water on the pavement surface. In addition to sharing all the advantages of OGFC with its polymer-modified counterpart, R-M OGFC also costs slightly less than conventional polymer-modified OGFC. When used in OGFC, scrap tires can be used at a rate of approximately 1,000 tires per mile of two-lane pavement.

*Note: Several other states use R-M OGFC, but with varying rubber contents and sizes.