



SHELL THIOPAVE

Improving the fuel resistance of asphalt pavements

Shell Thiopave enhances asphalt pavements' resistance to fuel spill damage, making it an ideal product for airports, ports, truck depots, bus stations and loading facilities.

Reducing fuel damage

Fuel spill damage can be extremely costly, as it can shorten the lifespan of pavements by breaking down the binder in the asphalt. Asphalt containing Shell Thiopave shows significantly improved resistance to fuel spill damage compared to conventional asphalt. This is because Shell Thiopave is not soluble in fuel, making the pavement more likely to achieve its projected service life.

Shell fuel immersion tests

To demonstrate the fuel resistance qualities of Shell Thiopave, asphalt mixture specimens were immersed in Jet A1 and diesel fuel as described below.

Procedure

1. Asphalt mixture specimens were prepared with and without Shell Thiopave

2. The initial masses of the specimens was recorded
3. One set of specimens was immersed in Jet A1 fuel for a period of 24 hours. A second set of specimens was immersed in diesel for a period of 28 days
4. After the prescribed immersion period, all specimens were left to dry for 24 hours before the final mass of each specimen was recorded
5. The final mass for each specimen was then compared to its initial mass.

In each case, the asphalt mixture containing Shell Thiopave lost significantly less mass than the conventional asphalt mixture as shown in Figures 1, 2 and 3.

Figure 1: Average loss of mass after fuel immersion.

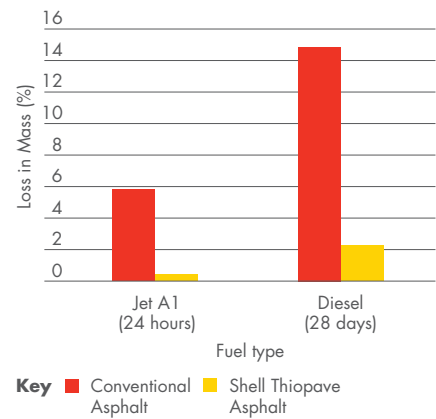


Figure 2: Laboratory compacted specimens after 24 hours Jet A1 immersion.



Figure 3: Laboratory compacted specimens after 28 days diesel immersion.



Conclusion

Fuel immersion tests give a clear indication that using Shell Thiopave significantly increases asphalt's ability to withstand contact with fuel.

Shell Thiopave offers road owners an alternative paving option for applications where frequent fuel spills are common, allowing them to consider using asphalt where in the past, it has been difficult or costly to do so.

For further information

please contact your local representative or;

David Strickland
Technology Manager
david.strickland@shell.com

www.shell.com/sulphur/thiopave

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