Shell Risella X oils are based on gas to liquids (GTL) synthesis technology. Consequently, they have a uniform molecular structure: mainly highly saturated linear paraffins with a few methyl side chains (see Figure 1) compared with standard conventional oils (see Figure 2), which contain higher levels of polar components. This feature contributes to good compatibility, particularly with TPE-SEPS, TPE-SEBS and TPE-V types, and EPDM, as the molecular structure is similar.
TECHNICAL WHITE OIL CLASSIFICATION

Shell Risella X oils have significant advantages for compound and rubber blend processing. Compared with conventional process oils, Shell Risella X oils demonstrate

- up to three times lower viscosity. Given Shell Risella X oils’ lower viscosity and more linear molecular structure than conventional oils, typically used in such applications, they can contribute to better flow of the melt, which is a key element in the production process.

- up to four times less evaporation loss. This improves the production environment and reduces the compound emissions (fogging).

OUTSTANDING UV STABILITY

Owing to their UV stability properties, Shell Risella X oils resist discoloration, which can be beneficial to your customers.

<table>
<thead>
<tr>
<th>Shell Risella X 415/420/430</th>
<th>Gr I oil (Shell Catenex S946)</th>
<th>Gr II oil (Shell Catenex T145)</th>
<th>Gr III oil (Shell Catenex T145)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh</td>
<td>Gr I oil (Shell Catenex S946)</td>
<td>Gr II oil (Shell Catenex T145)</td>
<td>Gr III oil (Shell Catenex T145)</td>
</tr>
<tr>
<td>72 h</td>
<td>Gr I oil (Shell Catenex S946)</td>
<td>Gr II oil (Shell Catenex T145)</td>
<td>Gr III oil (Shell Catenex T145)</td>
</tr>
<tr>
<td>168 h</td>
<td>Gr I oil (Shell Catenex S946)</td>
<td>Gr II oil (Shell Catenex T145)</td>
<td>Gr III oil (Shell Catenex T145)</td>
</tr>
</tbody>
</table>

PAH LEVELS COMPARABLE WITH MEDICAL WHITE OILS

Shell Risella X oils have very low PAH levels that are comparable with medical white oils. Their purity is in line with the requirements for formulations that meet more stringent legislation, which makes them appropriate for applications requiring higher levels of purity.

FIND OUT MORE: TALK TO SHELL PROCESS OILS

If you are interested in unlocking valuable competitive advantage, talk to Shell about the benefits that Shell Risella X oils could have for your business.

www.shell.com/processoils

The data shown for the Shell Risella X grades are those typical of current production. Although future production will conform to Shell’s specification, variation in these characteristics may occur.