X_BUTYL®
REGULAR BUTYL RUBBER FOR CHEWING GUM

X_Butyl® RB 101-3 is a specialty product manufactured for the chewing gum industry. In particular, regular butyl rubber is used in the gum base which is an important starting point for a wide variety of different finished gum products. For each type of gum base there are specific ingredients and combination of ingredients that result in the desired physical, chemical and processing characteristics for the application.

Our company applies the most stringent quality controls, consistent with food regulations and standards implemented worldwide. Flavor is retained longer than with natural rubber-based products and the transmission of air and water are minimized. Its low-temperature flexibility prevents it from becoming brittle and shattering, even in heavily-filled compounds.

X_Butyl® rubber has outstanding stability and resistance to ageing prevents hardening during shelf storage and thus helps to retain the soft texture required for stick gums. It also serves as a hydrophobic plasticizer, providing softness and smoothness to enhance chewing.

PRODUCT PROPERTIES

<table>
<thead>
<tr>
<th>Grade</th>
<th>X_Butyl® RB 101-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mooney Viscosity (ML(1+ 8) @ 125 °C, MU)</td>
<td>51</td>
</tr>
<tr>
<td>Unsaturation (mol%)</td>
<td>1.75</td>
</tr>
<tr>
<td>Volatile Matter (wt%)</td>
<td>&lt;1.0</td>
</tr>
</tbody>
</table>

TYPICAL FORMULATION

<table>
<thead>
<tr>
<th>Gum Base*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient</td>
<td>phr</td>
</tr>
<tr>
<td>X_Butyl® RB 101-3</td>
<td>8-15</td>
</tr>
<tr>
<td>Resin ester gum</td>
<td>40</td>
</tr>
<tr>
<td>Glyceryl monostearates</td>
<td>20</td>
</tr>
<tr>
<td>Calcium carbonate</td>
<td>16</td>
</tr>
<tr>
<td>Wax</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finished Gum*</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Ingredient</td>
<td>phr</td>
</tr>
<tr>
<td>Gum Base</td>
<td>100</td>
</tr>
<tr>
<td>Corn Syrup</td>
<td>100</td>
</tr>
<tr>
<td>Sugar</td>
<td>100</td>
</tr>
<tr>
<td>Other</td>
<td>as required</td>
</tr>
</tbody>
</table>

*These items are provided as general information only. They are approximate values and are not considered part of the product specifications. Please contact your regional representative for additional information.
TIRE AND SPECIALTY RUBBERS GLOBAL FOOTPRINT

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