The American Society of Testing & Materials established a standard (ASTM D2000) to provide guidance in the selection of vulcanized rubber materials such as natural rubber, reclaimed rubber, synthetic rubber, etc. The standard is arranged in a simple line call-out specification for each unique compound and durometer. Specifying your elastomer via a line call-out affords you the flexibility of using different manufacturers’ compounds while ensuring that the material quality and performance stay consistent.

**What is a Line Call-Out and How Do I Read It?**

For the purpose of this article we will use a typical 70 durometer compound line call-out. This line call-out would be indicated on a specification sheet as conformance to:

<table>
<thead>
<tr>
<th>ASTM D2000</th>
<th>M2</th>
<th>BG</th>
<th>7</th>
<th>14</th>
<th>B14</th>
<th>EA14</th>
<th>EF21</th>
<th>EO14</th>
<th>E034</th>
<th>Z1</th>
<th>Z2</th>
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</tbody>
</table>

**How to Read the Line Call-Out:**

**ASTM D2000** = Standard

**M** = Unit of measure. The “M” indicates that the document is compiled in SI (metric) units - for example, tensile strength is in megapascals (MPa). If “M” is not present, imperial units are being used - pounds per square inch (psi).

**2** = Grade Number. The grade defines specific added test requirements found in the ASTM D2000 document. All grades, with the exception of grade 1, have specific test criteria. Grade 1 indicates that only the basic requirements are compulsory. Grade 2, as seen above, indicates that there are additional requirements that are spelled out in the ASTM D2000 document.

**B** = Type. Type is an indication of the heat resistance properties of the elastomer compound. Type B corresponds to a 100°C (212°F) test temperature.

**G** = Class. The class indicates oil resistance properties of the elastomer, specifically resistance to swelling under Industry Reference Material (IRM) 903 oil. Class G indicates a maximum swell of 40%.

**714** = Hardness and Tensile Strength. The first digit (7) indicates the Shore A durometer. The next two digits (14) indicate the minimum tensile strength, i.e. 14 MPa.

**B14 EA14 EF11 EF21 EO14 E034 Z1 Z2** = Additional Test Requirements.

* Test criteria play an important role in helping you identify that you receive a consistent material across suppliers.