The newly revised ASTM D7611 standard advances the resin identification code system to meet the evolving needs of recycling stakeholders.
Diverse experts have come together in the open and transparent ASTM process to develop changes to D7611 that better align the RIC system with modern era requirements. The recent efforts of Committee D20.95 address several important technical issues that support the underlying focus of the Code and lay the groundwork for future improvements.

Melissa Hockstad, Vice President of Science, Technology and Regulatory Affairs Society of the Plastics Industry

1 PROVIDING A ROBUST AND RELEVANT CODING SYSTEM... FOR TODAY AND TOMORROW

Serving the needs of manufacturers, recyclers and other stakeholders, ASTM D7611-13, Practice for Coding Plastic Manufactured Articles for Resin Identification, offers a valuable foundational tool for managing the end-of-life of plastics materials. ASTM D7611 encompasses the long-standing resin identification code (RIC) system originally developed by the Society of the Plastics Industry (SPI).

Since 2008, diverse technical and industry experts have worked together under the ASTM International umbrella to advance the RIC system to meet evolving societal requirements. Working as part of ASTM Committee D20.95 on Recycled Plastics, their efforts have yielded the most recent enhancements to D7611, further modernizing the RIC system.

FULFILLING THE NEED FOR RESIN IDENTIFICATION AND QUALITY CONTROL

ASTM D7611 guides stakeholders in properly identifying manufactured articles made from various resin materials, ultimately helping to facilitate the desired recycling of these products. The standard delivers valuable utility to all members of the plastics recycling chain including:

- Consumers
- Manufacturers and Brand Owners
- Retailers
- Waste Collectors
- Municipal Recovery Facilities
- Plastics Reclaimers
- Others
ASTM D7611-13 provides codes for the six most commonly found resin types, with a seventh category created for all other types. These categories include: 1) polyethylene terephthalate (PETE); 2) high density polyethylene (HDPE); polyvinyl chloride (V); 4) low density polyethylene (LDPE); 5) polypropylene (PP); 6) polystyrene (PS); and 7) other, including materials made with more than one resin from categories 1-6.

To provide effective and consistent utilization of the RIC system across the stakeholder community, ASTM D7611 now uses a solid equilateral triangle symbol surrounding a numeral from 1 to 7 that defines the resin type used in the product’s packaging as follows:

<table>
<thead>
<tr>
<th>Resin</th>
<th>Resin Identification Code-Option A</th>
<th>Resin Identification Code-Option B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(ethylene terephthalate)</td>
<td>1 △ PETE</td>
<td>01 △ PET</td>
</tr>
<tr>
<td>High density polyethylene</td>
<td>2 △ HDPE</td>
<td>02 △ PE-HE</td>
</tr>
<tr>
<td>Poly(vinyl chloride)</td>
<td>3 △ V</td>
<td>03 △ PVC</td>
</tr>
<tr>
<td>Low density polyethylene</td>
<td>4 △ LDPE</td>
<td>04 △ PE-LD</td>
</tr>
<tr>
<td>Polypropylene</td>
<td>5 △ PP</td>
<td>05 △ PP</td>
</tr>
<tr>
<td>Polystyrene</td>
<td>6 △ PS</td>
<td>06 △ PS</td>
</tr>
<tr>
<td>Other resins</td>
<td>7 △ OTHER</td>
<td>07 △ O</td>
</tr>
</tbody>
</table>

ACCESSING THE LATEST RELEASE OF D7611

ASTM D7611-13 and its related adjunct are available for purchase online at www.astm.org or by contacting ASTM Customer Relations (phone: 877-909-ASTM; sales@astm.org).

The D7611 adjunct contains graphic representations of the Resin Identification Codes (RIC) as a molded, imprinted or raised symbol or wording and is available for download in PDF format.
GET INVOLVED

All parties interested in contributing to potential revisions to ASTM D7611 are invited to participate in the activities of ASTM Committee D20.95 on Recycled Plastics. For additional information on membership in ASTM International, please visit www.astm.org/JOIN.

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ABOUT ASTM INTERNATIONAL

ASTM International is one of the largest voluntary standards development and delivery systems in the world. ASTM standards are voluntary consensus documents that guide research, design, manufacturing, marketing and trade. For over a century, ASTM has met the technical needs of commerce by providing standards that are accepted and used around the world. ASTM’s market relevance is evident in more than 100 industrial and management sectors, ranging from construction materials and environmental assessment to medical devices and consumer products. There are 150 nations represented in ASTM International.

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