Plastic Coding Guidelines
in the United States

SPI Coding System Background
To facilitate correct plastic waste sorting of bottles and containers commonly found in the residential waste stream for the purposes of recycling, the SPI Resin Identification Symbol System, also known as the material container coding system, was created by The Society of Plastics Industry (SPI) in 1988. At that time, the overwhelming majority of plastic packaging was made with one of six resins: Polyethylene Terephthalate (PET or PETE), High Density Polyethylene (HDPE), Vinyl (Polyvinyl Chloride or PVC), Low Density Polyethylene (LDPE), Polypropylene (PP), or Polystyrene (PS).

SPI accounts for these six plastic types, assigning each a number from 1 to 6 as a uniform, nationwide and international voluntary labeling system. SPI also includes a seventh code, identified as “7-OTHER,” to be used when the product in question is made with a plastic other than the common six, or is made of more than one plastic used in combination. As the plastic industry has evolved, and many new plastics have emerged, a growing number of plastics do not meet the specific criteria to be labeled 1 through 6 and must be labeled with the generic code of “7-OTHER.” Presently, 39 US states have mandates that require labeling on all plastic packaging, all of which can be met through the use of SPI codes.

Predominant Plastic Coding
In the United States, a major question with the SPI coding system revolves around which states permit predominant plastic coding, i.e., coding of a multi-material plastic container on the basis of the predominant plastic in the container. Of the 39 US states, 37 tend to categorize multi-material containers in one of two ways: 17 expressly state that ‘multi-layer’ plastic containers should be coded as “7-OTHER,” while 20 states follow the approach that ‘any’ or ‘all other’ materials other than the six primary plastics should be coded as “7-OTHER.” Additionally, some states may evaluate multi-layer and other materials plastic coding requirements on a case-by-case basis with evidence of the container’s recycling compatibility and endorsement by local recyclers. To ensure packaging legality and compliance, manufacturers should take care to understand and conform to the most up-to-date labeling requirements of each jurisdiction in which they operate, early in the package and product design process.

For Containers. In general, the containers subject to SPI coding requirements in the above jurisdictions are plastic, defined as any material made of polymeric organic compounds, and most commonly include:

1. plastic bottles, usually defined as bottles with a neck smaller than its body and accepting of a type of closure, intended for single use and with capacity between 16 ounces and five gallons; and,
2. rigid plastic containers, usually defined as a formed and/or molded container intended for single use with a relatively inflexible finite shape and with a capacity between eight ounces and five gallons.

For Non-containers. The SPI code is not required for non-containers, such as plastic films, bags, trays, etc., per use of the SPI code on such packaging as a voluntary labeling method is currently permitted.

Implicit in the definition of predominant resin coding is the requirement that the added material be fully compatible with recycling in the state.
SPI Graphic Requirements (size, shape, location)

The seven SPI codes are illustrated below:

Ingeo™ natural plastic is the trade name for the manufactured biopolymer of polylactic acid, or PLA manufactured by NatureWorks LLC. In order to meet all the mandatory SPI coding requirements, Ingeo™ biopolymer containers that are between eight ounces and five gallons should be marked as “7-OTHER” when manufactured and/or sold in these jurisdictions. The SPI symbol should be molded or embossed into the base and positioned as close to the center as possible. The recommended size is between one-half inch and one inch, depending on the size of the container (measurements are for the symbol alone, not including letters).

Deceptive Claims Guidance

The SPI code (if used as prescribed) does not constitute a claim of recyclability. Users are encouraged to adhere to the following guidelines to avoid misuse of the coding system:

- Use the SPI code solely to identify resin content.
- Make the code inconspicuous at the point of purchase, so it does not influence the consumer’s buying decision.
- Do not modify the elements of the code in any way (i.e., do not replace the resin acronym in the code and do not use other types of chasing arrows).
- Do not make recycling claims in close proximity to the code, even if such claims are properly qualified. For example, do not use the term “recyclable” in proximity to the code.
- Comply with the FTC Guides for the Use of Environmental Marketing Claims whenever the SPI code is used.

These guidelines (available at http://www.ftc.gov/bcp/grmrule/guides980427.htm) are the most comprehensive and are comparable to those of the other countries; claims compliant with FTC guidelines will generally satisfy other guidelines.

Claim of Recyclability

It is deceptive to misrepresent, directly or by implication, that a product or package is recyclable. A product or package should not be marketed as recyclable unless it can be collected, separated or otherwise recovered from the solid waste stream for reuse, or in the manufacture or assembly of another package or product, through an established recycling program. Claims of recyclability should be qualified to the extent necessary to avoid consumer deception about any limited availability of recycling programs and collection sites. If an incidental component significantly limits the ability to recycle a product or package, a claim of recyclability would be deceptive. A product or package that is made from recyclable material, but, because of its shape, size or some other attribute, is not accepted in recycling programs for such material, should not be marketed as recyclable.
NatureWorks LLC is a company dedicated to meeting the world’s needs today without compromising the earth’s ability to meet the needs of tomorrow. NatureWorks LLC is the first company to offer a family of low-carbon footprint biopolymers derived from 100 percent annually renewable resources with performance and economics that compete with oil-based plastics and fibers. The production of these biopolymers uses less fossil fuel and emits fewer greenhouse gases than conventional polymers. The company applies its proprietary technology to process natural plant sugars to make NatureWorks® biopolymer, which is then used uniquely to make and market finished products under the Ingeo™ brand name. For more information, visit www.natureworksllc.com.

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