

**INTERNATIONAL ASSOCIATION OF PLUMBING
AND MECHANICAL OFFICIALS**

IAPMO GUIDE CRITERIA

FOR

**PERFORMANCE of ENGINEERING THERMOPLASTICS MATERIALS
(INJECTION MOLDING and EXTRUSION GRADES)
SUITABLE for KITCHEN and BATH APPLICATIONS
(TYPE I and III MATERIALS ONLY)**

IAPMO IGC 149-99 (R2013)

1. PURPOSE

- 1.1** The purpose of this standard is to establish an acceptable material performance standard for Type I and III engineering thermoplastic materials (injection molding & extrusion grades) utilized in kitchen and bath applications. Its purpose is to serve as a guide for manufacturers, distributors, architects, engineers, contractors, installers, inspectors and users to promote understanding regarding Type I and III engineering thermoplastic materials performance in accordance with the applicable portions of the ANSI Z124 standards.

2. SCOPE

- 2.1** This standard applies to Type I and III engineering thermoplastic materials intended for use in kitchen and bath sinks, lavatories, bathtubs, bathtub liners, shower units, shower receptors, and shower stalls. Specifically, this standard identifies the material tests necessary to list or certify these materials. The intent of this standard is to allow customers utilizing materials that comply with these requirements to be exempt from having to perform these material tests on their finished products.

3. REFERENCED STANDARDS

- 3.1** All standards referenced herein shall be the current edition of that standard.

ANSI Z124.1	Plastic Bathtubs
ANSI Z124.2	Plastic Showers
ANSI Z124.3	Plastic Lavatories
ANSI Z124.6	Plastic Sinks
ANSI Z124.8	Plastic Bathtub Liners
ASTM D 883	Standard Terminology Relating to Plastics

4. DEFINITIONS

- 4.1** Engineering Thermoplastic: A thermoplastic possessing physical properties conducive for specific applications where these properties are necessary for performance, and where a commodity thermoplastic would not be suitable.
- 4.2** Rework Material: Material from a processor's own production that has been reground, pelletized, or solvated after having been previously processed by molding, extrusion, etc. as described in ASTM D 883.
- 4.3** Type I: No separate surface finish: The surface finish is the same as, and is usually integral with, the structural base, eg., sheet molded materials.
- 4.4** Type III: Shell-coated surface finish: These units are characterized by the presence of a thermoplastic sheet material which is thermoformed and to the back of which a structural base is applied, eg., acrylic faced fiberglass.

5. GENERAL REQUIREMENTS

- 5.1** Type I and III engineering thermoplastic material grades intended for kitchen and bath product applications shall meet the following criteria as defined in the ANSI Z124 Standards:
- a) Colorfastness and Aging Test
 - b) Stain Resistance Test
 - c) Wear and Cleanability Test
 - d) Cigarette Test
 - e) Chemical Resistance Test
 - f) Water Resistance Test

Approved: July 1999

Reaffirmed: October 2013