

**PPI TR-4 Listing Process Explained
(Initial listing - PE4710 compounds)**

Note, the following is only an example. Actual steps depend on the ingredient being listed. Should you have questions regarding the process, please contact the PPI Hydrostatic Stress Board Chairman via the PPI HSB web page.

Listing Process (please call with questions)

- 1. Ensure the latest versions of PPI TR-2, PPI TR-3 and all applicable standards are used.**

- 2. Determine what type of listing is needed for your product (e.g. HDB, PDB, MRS) and at what temperatures**
 - i. HDB and MRS are typically applied to solid wall pipe and some all polymeric multilayer structures.
 - ii. PDB is typically applied to polymer composite pipe (e.g. polymer/AL/polymer) or all polymeric multilayer pipe of unique constructions.
 - iii. PE4710 products HDB recommendations are typically listed at 73F (23C, baseline temperature) and 140F (60C).
 - iv. To carry an HDB recommendation at elevated temperatures (e.g. 160F/ 60C), the product must carry a listing at baseline temperature.
 - v. One may apply PPI TR-3 Part D.2 Interpolation Policy to establish HDB recommendations at temperatures between the baseline and the temperature establishing the elevated temperature HDB. *See PPI TR-3 Part D.2 for details.

- 3. READ all of the requirements in PPI TR-3 pertaining to your product. For example:**
 - i. For **typical HDB recommendations**: Part A.1, Part A.2 (73F/ 23C recommendations) and Part A.3 (140F / 60C recommendations).
 - ii. For **typical PDB recommendations**: Part A.7.
 - iii. For **typical MRS recommendations**: Part B.1 and B.2.
 - All MRS recommendations are at the Standard Grade listing level.
 - ISO 9080 MRS data can be used to initiate an HDB request. Datasets typically result in an Experimental Grade listing level HDB recommendation, providing requirements are met such as Validation and Substantiation.
 - iv. Note, to carry a listing at an elevated temperature (i.e. 60C), the product must carry a listing at 23C (baseline temperature).
 - v. As this is a polyethylene, **Validation requirements apply**: Part F.4 (validation)
 - vi. As this is a PE4710, **Substantiation requirements apply**: Part F.5 (substantiation - required to qualify for the 0.63 DF), Part F.7 (0.63 DF qualification requirements)
 - vii. **Determine the cell classification** and extract the material designation to submit with the request (e.g. ASTM D3350). For example, PE 4710 is extracted from the cell classification → material designation: PE=Polyethylene, '4'=density, '7'=slow crack growth resistance, '10'= hydrostatic strength

4. **Submit a request on company letterhead, product data and the completed/ signed PPI HSB Non-PVC Checklist to request the listings.**
 - i. Electronic templates are available for download on the PPI HSB web section:
<http://plasticpipe.org/hsb/hsb-tr4-listing-requirements.html>.

5. **PPI HSB Chairman will place the request in the review queue, review the request/ data and then communicate the status once the review is completed. Pending on the dataset, the status could result in one of the following:**
 - i. **No authorization.** *Note, it is important to ensure the correct data is submitted to prevent this scenario. Please do not hesitate to call with any questions prior to submitting the data.
 - ii. **Authorization of an Experimental Grade**, refer to PPI TR-3, Part A.1.2.1 and specifics per temperature in Part A. The Experimental Grade must advance toward a Standard Grade per the time requirements detailed in Part A. Also, the definition of 'Experimental Grade' includes a note regarding risk of commercial sales at this grade level.
 - iii. **Authorization of a Standard Grade:** the data complies with the full requirements of the applicable parts of PPI TR-3.
 - iv. **Special Case:** something unique in the dataset/ request requires review and authorization for a listing by the full HSB. These are presented by the requestor during the two HSB meetings per year (Spring/ Fall). A request for a Special Case can be made in advance to the HSB Chairman.

OTHER ITEMS for CONSIDERATION

Dependent Listing Program

- For PE4710, the Dependent Listing Program is applied between the resin manufacturers (typically the Independent Listing Owners) and the pipe manufacturers (typically the Dependent Listing Owner). PPI TR-3 details the requirements in Part D.3. The request templates are available for download on the PPI HSB web section:
<http://plasticpipe.org/hsb/hsb-tr4-listing-requirements.html>.

Key Documents

- **PPI TR-3** (requirements, policies, procedures for compounds), **PPI TR-2** (ingredients listings specific to the PPI PVC Range Composition) and **PPI TR-4** (compound listing document),
- **ASTM 3350** (used to establish the cell classification of a polyethylene pressure pipe compound).
- **ASTM D2837** (key HDB and PDB methodology)
- **ISO 9080 and ISO 12162** (key MRS methodology and classification document)