Heat Transfer Compounds

FREQUENTLY ASKED QUESTIONS

Thermon has always produced the highest performing, highest quality heat transfer compounds (HTC's)[1] in the world. Having been instrumental in developing the heat trace industry over 65 years ago (steam, fluid & electrical heat trace) Thermon is now raising the bar with significant improvements to three of our heat transfer compounds. These three products have higher temperature ratings, better performance, and are certified to industry recognized standards.

The following FAQ's will help everyone understand the value of our new and improved HTC's:

Question: What Heat Transfer Compounds will be affected by this announcement, and what are the new temperature ratings?

Answer:

- **T-3:** Thermon's flagship heat transfer compound now has temperature ratings of 371°C (700°F).
- **T-99:** This high temperature compound now has temperature ratings of 1204°C (2200°F). (That's 204°C/368°F higher than before!)
- **T-85:** This epoxy-based heat transfer compound now has temperature ratings of 232°C (450°F). (That's 42°C/75°F higher than before!)

Note: The Thermon products SnapTrace, EFS-1, Non-hardening, and T-802 are not changing in any way.

Question: Will the older formulations of these heat transfer compounds be compatible with the new?

Answer: Yes, the improved formulations can be substituted for every application where the original compounds were used in the past, and can be placed in direct contact with each other.

Question: Will the packaging and shipping of the improved formulations be distinguishable from the original formulations?

Answer: There will be no shipments that mix existing inventories with the new and improved compounds. Packaging for the new formulations is clearly distinguishable from the originals. Other changes include:

- **T-85: Metric packaging** introduction—300 ml cartridge[3], 4-liter and 20-liter pails.
- **T-99:** Only available in 1-gallon pail. **(The 2-gallon pail is discontinued.)**
- **T-3:** No change in packaging. (1-gallon, 2-gallon, and 5-gallon options), however, the new T-3 is lighter in color[4].

Question: Will the original T-3, T-85, and T-99 formulations be available in the future?

Answer: Effective March 30, 2020, all new orders for these products will be filled with the new formulations. After September 30, 2020, Thermon reps and/or distributors' inventories should be depleted and the transition should be complete. Only the newer formulations will be inventoried and shipped from San Marcos. Special situations may be considered[5].

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Heat Transfer Compounds—FAQ's (Continued)

Question: Will the bond strength of these three products change with the new formulations?

Answer: Yes… but all meet or *exceed* the bond strengths of their respective predecessor.

Question: Third party technical standards have been referenced; what does this mean to a customer?

Answer: Thermon's participation in the creation and maintenance of various heat trace standards has always been respected in the industry. This includes technical standards on heat trace system design, installation, operation and maintenance, as well as those governing the manufacturing and testing of our products. Thermon was the first heat trace company to achieve ISO9001 Quality Certification, doing so through three separate and independent certifying bodies. Now we're applying well respected industry standards to raise the market's expectations for *all* heat transfer compounds. ASTM standards are being expanded to "benchmark" and confirm critical mechanical performance ratings, including;

- Bond Strength (ASTM D1002)
- Max Exposure Temperature (ASTM C447)

We are also expanding our testing for chlorides to reduce the risk of stress corrosion cracking, which is especially important to our customers with stainless steel piping, vessels and other equipment:

- Water soluble chlorides (ASTM C1218)
- Acid Soluble Chlorides (ASTM C1152)
- Leachable Halogens (ASTM C871)

Question: Epoxy-based heat transfer compounds often have a limited shelf-life, even when refrigerated. Can anything be done to extend the shelf life of such products?

Answer: Yes! The shelf life for the new formulation of T-85 is one year *at room temperature*. That's four times the previous shelf life… without refrigeration!

Notes:

1. Many have assumed the name "Thermon" describes all heat transfer compounds. Don't accept lower grade products for steam trace applications!
2. T-75 heat transfer compound is being discontinued.
3. T-85 metric packaging will impact volumes of product in each container.
4. Removal of one component from T-3 results in lighter color and a more environmentally friendly product.
5. Some government agencies may require more time in qualifying new formulations.