# Torlon® 4000TF

### Polyamide-imide

### Solvay Specialty Polymers

#### Message:

Torlon 4000TF is a fine particle polyamide-imide (PAI) resin with regular particles, which is specially used for mixing with other polymers and special additives. It is the matrix resin of all Torlon injection molding compounds. The powder form allows designers to use the recognized characteristics of Torlon polyamide-imide to customize composites and specialty products for customers, giving them unparalleled performance under extreme conditions, and excellent wear resistance, creep resistance and chemical properties. Torlon 4000TF is a fine-grained powder suitable for molded parts. The maximum particle size is 150 µm, the 95% particle size is less than 75 µm, and most particle size is between 30-40 µm. The IV of this brand is greater than 0.50, usually 0.50-0.65. Can supply coarse powder brand Torlon 4000T, can also supply similar to Torlon 4000TF powder. After adding Torlon Al- 50. The strength and wear resistance of the molded compound can be uniquely improved by adding Torlon 4000TF powder. After adding Torlon 4000TF, polytetrafluoroethylene (PTFE) and related fluoropolymer composites show higher strength, greatly reduce creep, and improve the performance of wear-resistant products. Torlon 4000TF is used as a high-temperature resistant, high-performance matrix binder for various other molded parts such as clutches, brake pads and their components, molten metal powders and thermoplastic magnets. The fine powder can also be used in thermal spraying processes, such as flame spraying and high-speed oxygen fuel (HVOF) spraying technology.

In addition to molded parts, Torlon PAI powder can also be used in other high-performance forms. For example, these powders are dissolved in dipolar aprotic solvents, such as N-methylpyrrolidone (NMP), dimethylacetamide (DMAC), dimethyl sulfoxide (DMSO) and dimethylformamide (DMF), and the solutions of these systems can be sprayed into coatings, cast films, spun fibers, cast or spun special films. Torlon PAI powder can also be used to make high-strength, high-temperature resistant adhesives. Torlon PAI powder can also be incorporated into epoxy resins and other thermosetting systems to obtain additional strength, ductility and heat resistance.

| General Information                    |                          |      |  |
|--|--------------------------|------|--|
| Features                               | Good chemical resistance |      |  |
|  | Heat resistance, high    |      |  |
|  | Flame retardancy         |      |  |
|  |                          |      |  |
| Uses                                   | Mixing                   |      |  |
|  | cast film                |      |  |
|  | Coating application      |      |  |
|  |                          |      |  |
| RoHS Compliance                        | Contact manufacturer     |      |  |
| Forms                                  | Powder                   |      |  |
| Processing Method                      | Coating                  |      |  |
|  | Compression molding      |      |  |
|  |                          |      |  |
| Physical                               | Nominal Value            |      |  |
| Intrinsic viscosity-0.5% in NMP (25°C) | > 0.50                   |      |  |
| Injection                              | Nominal Value            | Unit |  |
| Drying Temperature                     | 177                      | °C   |  |
| Drying Time                            | 3.0                      | hr   |  |
| Injection instructions                 |                          |      |  |
|  |                          |      |  |

干燥时间/温度: 300°F,4 小时干燥时间/温度:250°F,16小时

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