

# ForTii® Ace JTX8

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This quick start instruction gives an indication of the key settings for processing ForTii® Ace JTX8 to ensure best crystallization and prevent material degradation as a result of hydrolysis or thermal load. It is a summary of the Injection Molding Recommendations which can be found in our Plastics Finder at <https://envalior.plasticsfinder.com>. Our online guidelines are recommendations to help with material processing and/or to evaluate and resolve potential processing issues.

## MATERIAL HANDLING

### Drying

ForTii® Ace grades are hygroscopic and absorb moisture from the air relatively quickly. Moisture absorption is fully reversible under the following drying conditions without compromising material quality. Preferred driers are de-humidified driers with dew points maintained between -30 and -40°C / -22 and -40°F. Vacuum driers with N<sub>2</sub> purge can also be used. Hot air ovens or hopper driers are not suitable for pre-drying ForTii® Ace grades; the use of such driers may result in non-optimum performance.

| Moisture content           | Time  | Temperature |           |
|----------------------------|-------|-------------|-----------|
|                            |       | [°C]        | [°F]      |
| 0.1 – 0.2 and as delivered | 2 – 4 | 100 – 130   | 212 – 266 |

## TEMPERATURE SETTINGS

### Barrel temperature

Due to the high melting point of ForTii® Ace this temperature should be set high enough to provide a homogeneous melt without getting too near to the degradation temperature of 370°C / 698°F. A flat or rising temperature profile is recommended. Optimal settings are governed by barrel size and residence time.

| Mold/Tool                  | Measured melt          | Nozzle                 | Front                  | Center                 | Rear                   |
|----------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 120 – 200°C<br>248 – 392°F | 350–370°C<br>662–698°F | 350–370°C<br>662–698°F | 340–350°C<br>644–662°F | 340–350°C<br>644–662°F | 330–340°C<br>626–644°F |

## MELT RESIDENCE TIME

The optimal Melt Residence Time (MRT) for ForTii® Ace JTX8 is ≤ 2 minutes with preferably at least 50% of the maximal shot volume used. The MRT should not exceed 4 minutes. A full self-service MRT calculation can be done using the following [link](#).

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