

Although thermophysical data are usually available from manufacturers, no data on thermomechanical properties are provided for waxes used in investment casting.

In order to improve the prediction of pattern tooling dimensions,

The modulus of elasticity, compressive strength, and proportional limit have

If the waxes are assumed to be isotropic

generality that waxes have an elastic behavior in dilatation. By taking into account the thermal expansion, the constitutive behavior for the hydrostatic stress and dilatation becomes:

as a function of temperature is shown in Figure 8. A minimum in the bulk modulus is observed at 60

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