

Data Sheet

AIRCAST 3700

RTV high temperature casting compound

DESCRIPTION

Aircast 3700 is a two component modified RTV compound designed for use as a flexible mould making material and mandrels. Aircast 3700 is ideal for casting pressure pads. The high differential in thermal coefficient of expansion between Aircast 3700 and a sealed metal tooling box makes it useful in trapped rubber moulding.

TECHNICAL DATA

Properties - uncured :

Base mix ratio by weight	100 parts A
Curing agent mix ratio by weight	12 parts B
Base colour	Tan
Curing agent colour	Blue
Viscosity at 25 °C (mixed)	150.000 cps

Test method

Properties - cured 24 hrs at 25 °C :

Density	1,25 g/cm ³	ASTM D 792
Maximum use temperature	232 °C	
Thermal conductivity	2,6 W/mK	
Elongation at break	180 %	ASTM D412
Hardness	50 +/-5 Shore A	ASTM D2240
Tensile strength	4,48 MPa	ASTM D412
Tear strength	11,38 kN/m	ASTM D624
Compression set (22 hrs at 177 °C)	10 %	ASTM D395
Coef. of thermal expansion	$2,5 \times 10^{-4} \text{ }^{\circ}\text{C}^{-1}$	
Shelf life	12 months	

SIZES

Packaging	Part A	Part B
9 Lbs kit	8 Lbs (3,63 Kg)	1 Lbs (0,45 Kg)
45 Lbs lit	40 Lbs (18,15 Kg)	5 Lbs (2,27 Kg)

APPLICATION

Mixing Instructions:

Mix 100 parts base (Part A) with 12 parts curing agent (Part B) by weight. Place the material in a vacuum chamber to remove trapped air. As vacuum is drawn, the material will expand as much as four times its original volume. After 1 - 2 minutes, the material will recede to its original volume. Remove from vacuum chamber and stir material to assist pouring.

Curing chart:

At 25 °C, the pot life is 1 hour. Cure time: 24 hours, no shrinkage.

At 38 °C, the pot life is 30 minutes. Cure time: 2 hours. 0,3 % shrinkage.

At 65 °C, the pot life is 10 minutes. Cure time: 30 minutes. 0,5 % shrinkage.

At 149 °C, the cure time is 5 minutes. 1 % shrinkage.

Mould release:

Certain materials will cause inhibition or neutralisation of the curing agent. Inhibition may easily be determined by brushing a small quantity of Aircast 3700 over a localised area of the surface to be reproduced. If the Aircast 3700 is gummy or uncured after the curing time has elapsed, then you know the mould surface is acting as an inhibitor. Silicone release agents will cause inhibition and must not be used. Following release agents can be used and do not contain silicones of any kind: Release All® Safelease 30, Release All® Safelease 20L, Release All® 19.

Service Life Extension:

Aircast 3700 can be covered with Teflease MG2 pressure sensitive tape to extend the service life and aid in release properties.