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### **DATA SHEET**

## **AIRCAST 3700**

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## RTV High Temp Casting Compound

## **General Information**

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

Properties - Uncured

Base to curing agent ratio: 100 Parts A / 12 Parts B

Color - Base: (Part A) Tan
- Curing Agent: (Part B) Blue
Viscosity at 77°F (25°C) 150,000

cps after addition of curing agent

Shelf life: 12 months from date of manufacture

Properties - Cured 24 Hours at 77°F (25°C)

ASTM D2240 Durometer Hardness Shore A 50 +/-5
ASTM D412 Tensile Strength, psi 650
ASTM D412 Elongation, percent 180
ASTM D624 Tear Strength, psi 65
Specific Gravity @ 77°F (25°C) 1.25

Heat Resistance to 450°F (232°C)

Thermal Conductivity 1.5

BTU-FT/HR FT2 °F

Compression Set (22 hrs. @ 350°F 177°C) 10%

Coefficient of thermal expansion: 140 x 10<sup>-6</sup> in/in/°F

252 x 10<sup>-6</sup> cm/cm°C

CATALOGPOSITION: RUBBER



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### Mixing Instructions

The base and curing agent are mixed just before using. Mix 100 parts base (Part A) to 12 parts curing agent (Part B) by weight. Automatic mixing equipment or manual mixing may be used to combine base and curing agent. Immediately after mixing, 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.

| <u>Curing Chart</u> |          |           |          |
|---------------------|----------|-----------|----------|
| <u>Temperature</u>  | Pot Life | Cure Time | Shrink % |
| 32°F ( 0°C)         | 48 Hrs.  |           |          |
| 77°F (25°C)         | 1 Hrs.   | 24 Hrs.   | 0        |
| 100°F (38°C)        | 30 Mins. | 2 Hrs.    | 0.3      |
| 150°F (65°C)        | 10 Mins. | 30 Mins.  | 0.5      |
| 300°F (149°C)       |          | 5 Mins.   | 1.0      |

### Mold Release

Certain materials will cause inhibition of neutralization of the curing agent. The materials are sulphur and organometallic salt containing compounds such as organic rubbers and many RTV silicone rubbers. Inhibition may easily be determined by brushing a small quantity of **Aircast 3700** over a localized 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 mold surface is acting as an inhibitor. Molds made from wood, plaster, metal or plastic should not cause inhibition, if they are clean. Silicone release agents will cause inhibition and must not be used.

The following is a list of release agents which <u>can</u> be used and <u>do not</u> contain silicones of any kind.

### <u>Approved</u>

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.

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