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## Board Material

### Cibatool® BM 5166

### Sheet metal forming tooling board

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#### Key properties

- Good abrasion resistance
- Low coefficient of thermal expansion
- Excellent compressive strength
- High density
- Good heat resistance
- Good machinability

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#### Applications

- Sheet metal forming tools
- Tooling jigs and fixtures

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#### Typical product data

Property	Test method	Test value
Colour	Visual	Ivory
Density g/cm <sup>3</sup>	-	1.7
Hardness (shore D)	ISO 868	85 - 90
Barcol hardness	-	30 - 35
Flexural strength, N/mm <sup>2</sup>	ISO 178	55 - 65
Deflection temperature °C	ISO 75	75 - 80
Compressive strength, N/mm <sup>2</sup>	ISO 604	90 - 100
Coefficient of thermal expansion, 10 <sup>-6</sup> .K <sup>-1</sup>	DIN 53752	45 - 50
Linear to °C	-	50

Dimensions (mm)	800 x 400 x 50	800 x 400 x 100
Volume (l)	16	32
Weight (kg)	26 - 30	53 - 56
Number of boards per pack	2	1
Number of boards per pallet	24	12

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**Bonding and  
repair**

System Resin Hardener	Araldite® AW 106 <sup>①</sup> HV 953U	Araldite® AV 5308 <sup>②</sup> HV 5309	Ureol® 5216A 5216B 5219B
Mixing ratio (pbw)	100 : 60	100 : 100	80 : 50 : 50
Mixture appearance and characteristics	transparent	beige thixotropic	beige transparent
Pot life (mins)	60 - 90	40	2 - 3
Minimum clamping time (hours)	12	15	2
Notes	sheet metal forming	for tooling jigs	suitable for both

Repair Filler system options	Araldite AV 5308 <sup>②</sup> HV 5309	Ureol 5216 A, 5216 B, 5219 B, DT 082
Mixing ratio (pbw)	100 : 100	80 : 50 : 50 : 400
Mixture appearance and characteristics	beige thixotropic	beige thixotropic
Pot life (mins)	30 - 40	2 - 3
Minimum curing time (hours)	15	2 - 3
Notes	Alternatively repair with adhesive bonded inserts	

<sup>①</sup> AW 106 and HV 953U are supplied in smaller packs as Araldite 2011.

<sup>②</sup> AV 5308 and HV 5309 are supplied in smaller packs as Araldite 2015.

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**Storage**

Cibatoool BM 5166 may be stored flat in original cartons at 15° to 38°C.

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**Handling  
precautions****Caution**

Ciba Specialty Chemicals' products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in Ciba Specialty Chemicals publication No. 24264/3/e Hygienic precautions for handling plastics products of Ciba Specialty Chemicals and in the Ciba Specialty Chemicals Material Safety Data sheets for the individual products. These publications are available on request and should be referred to for fuller information.

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Polymers**

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