

## Structural Adhesives

**DVD Adhesives****XD 4860****UV curing acrylic adhesive****Key properties**

- Suitable for DVD 9 (Silver alloy: Aluminium)
- Suitable for DVD 9 (Silver alloy: Silver alloy)
- Suitable for DVD 5, DVD 10
- High viscosity
- Very fast cure under UV light
- All formats pass 80°C / 85%RH / 96 hours climate test

**Typical product data**

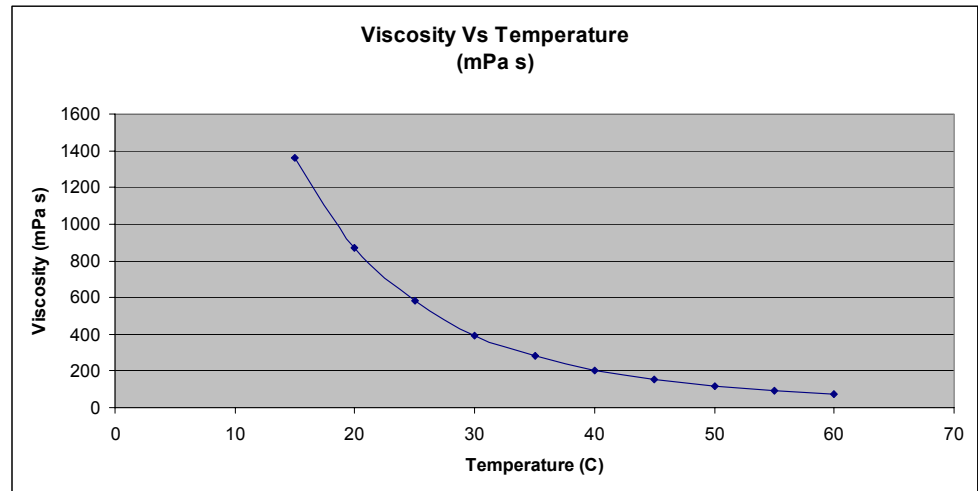
Property	XD 4860
Appearance	Clear, pale yellow, liquid
Viscosity at 25°C	550 mPas
Refractive index at 25°C	1.49
Shrinkage	5%
Modulus	620 MPa
Surface Tension	37 mN/mm
Tg (DMA)	60°C

**Cured strength data**

Polycarbonate: Polycarbonate	3.6 N/mm <sup>2</sup>
Polycarbonate: Aluminium	1.4 N/mm <sup>2</sup>
Aluminium: Aluminium	0.9 N/mm <sup>2</sup>
Silver Alloy: Aluminium	0.7 N/mm <sup>2</sup>

*\* Substrates are prepared by wiping with isopropanol, to remove any residues prior to bonding. All substrates are DVD polycarbonate based sputtered with the designated layer. All the following properties were determined after passing under a medium pressure mercury lamp. All results are for lap shears with a 12.5mm x 25mm bonded overlap and uncontrolled bond line thickness of 50-150 microns. This data provided is solely as technical information and does not constitute a product specification.*

## Processing



XD 4860 will cure readily with most lamp types; the cure is dependant on the adhesive layer thickness, the output of the light source and distance of the adhesive from the lamp, as well as the substrate.

Dose of UV light for full cure	200 mJ/cm <sup>2</sup>
Time for full cure	2 sec

## Climate Data

**DVD 9 TTP40 Silver Alloy / Aluminium**  
**80°C / 85%RH / 96 hours**

System Jitter (%)	Before Climate Ageing		After Climate Ageing		Delta	
	Layer 0	Layer 1	Layer 0	Layer 1	Layer 0	Layer 1
Radii						
24 nm	7.1	6.3	7.2	6.2	0.1	-0.1
32 nm	7.0	6.8	7	6.8	0	0
40 nm	7.2	6.9	7.1	6.9	-0.1	0
49 nm	7.2	6.9	7.3	7.0	0.1	0.1
57 nm	7.3	6.8	7.9	7	0.6	0.2
<b>PI Errors</b>						
24 nm	13	39	13	41	0	2
32 nm	10	42	13	43	3	1
40 nm	11	32	11	34	0	2
49 nm	13	26	13	27	0	1
57 nm	16	31	50	41	34	10

## Storage

XD 4860 can be stored for up to 1 year at 2 - 40 °C in the original sealed containers. The expiry date is indicated on the label.

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## Handling precautions

### Caution

Our 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 the Material Safety Data sheets for the individual products and should be referred to for fuller information.

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Huntsman  
Advanced  
Materials  
Americas Inc

10003 Woodloch  
Forest Drive  
The Woodlands  
Texas 77380

Tel: +1888 564 9318  
Fax: +1281 719 4047  
[www.araldite.com](http://www.araldite.com)