

# DYMAX MD® UV Adhesives for Medical Device Assembly



## Description

**DYMAX MD Medical Device Adhesives** are light curing and fluorescing adhesives which significantly reduce your assembly processing costs. DYMAX MD adhesives cure upon exposure to visible and UV light resulting in cure time reductions up to 50%. UV/visible light curing technology also permits bonding of UV inhibited and tinted plastics. In-line inspection of the adhesive bond is made possible with our *Ultra Fluorescing* technology. Our adhesives glow brightly when exposed to low intensity "black light". DYMAX MD adhesives enhance the function of automated vision equipment which can be used for in-line inspection for high speed, high volume production.

**DYMAX** solvent-free adhesives provide reliable, cost saving assembly solutions for medical device manufacturing.

## Features & Benefits

- ISO 10993 approved
- USP Class VI approved
- 100% solids, 100% solvent-free, single-part materials
- Cure on demand, in seconds, with UV and/or visible light
- Range of viscosities for specialised requirements
- Range of properties, rigid to flexible
- Deep section curing for potting and strain relief
- Optically clear grades

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## Applications

### Reservoir Bonding Adhesives

Reduce your production costs and ensure process consistency with DYMAX MD adhesives. This series of UV/visible light curing adhesives offers superior adhesion and performance in bonding rigid plastics such as used in reservoir assembly. High strength bonds can be obtained with polycarbonate, ABS, PVC and acrylic. The ability to cure DYMAX MD adhesives with UV or visible light permits bonding of substrates that are UV blocking or practically opaque.



### Anaesthesia Mask Bonding Adhesives

The DYMAX "MSK" line of adhesives was formulated to provide 100% solvent-free, cost saving assembly solutions for anaesthesia mask production, as well as other components in a breathing circuit. The "MSK" series adhesives cure in seconds upon exposure to UV/visible light, providing the ability to increase output without additional labour or line expansion. Strong, flexible bonds are produced which offer excellent resistance to thermal changes. They can be used to bond dissimilar substrates including PVC, polycarbonate, K-Resin®, polyethylene, styrene, polyurethane and CAP. In-

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line inspection of the bond area is made possible through the adhesives' ability to fluoresce upon exposure to low intensity "black" light, which is employed in many vision system packages.

## **Cannula and Needle Bonding Adhesives**

DYMAX adhesives cure "on demand" at room temperature upon exposure to UV and visible light. The combination of high intensity visible and longwave UV light greatly enhances our adhesives' speed and depth of cure. This advantage offers the greatest benefit in needle bonding applications involving opaque hubs and deep wells. Visible light curing also permits bonding of UV blocking and heavily tinted plastics. Complete cures in as little as 1-2 seconds make these adhesives ideally suited for automated assembly lines, which incorporate immediate in-line testing, and packaging. These brilliantly fluorescing adhesives enhance the performance of automated sensing and vision systems, leading to higher production yields and improved quality assurance. These adhesives are single component, and require no mixing or special storage conditions.

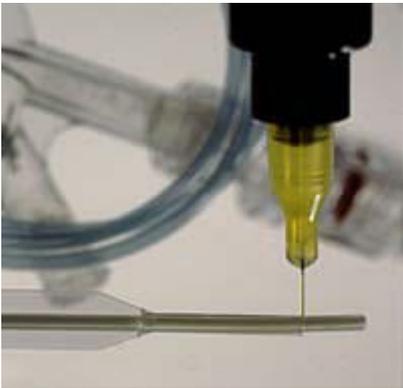


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## Catheter Bonding Adhesives

The DYMAX “CTH” line of adhesives was formulated to meet the unique challenges associated with the assembly of catheter materials and design. These adhesives provide excellent adhesion, flexibility, consistency and fast cure speeds. “CTH” adhesives are capable of bonding materials such as nylon, PEBAX, PEEK, polyurethane and polyethylene.



Adhesive	Typical Application	Substrates
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Adhesive	Typical Application	Substrates
<b>Dymax 1072-M</b> DYM 1072-M	Medical devices; flexible; moisture resistant plastic bonder	COC, COP, SS, PS, PU, PVC
<b>Dymax 1165-M</b> DYM 1165-M	Medical devices; clear; flexible plastics adhesive	PVC, PC, PU, ABS, EVA
<b>Dymax 1180-M-UR</b> DYM 1180-M-UR	Medical devices; Ultra-Red fluorescing adhesive for plastics and metals	PC, PVC, PU, ABS, SS
<b>Dymax 1180-M</b> DYM 1180-M	Medical devices; variety of viscosity and rheological characteristics for various needle and hub designs	ABS, GL, PP, SS
<b>Dymax 1184-M-B</b> DYM 1184-M	Medical devices; black; low gloss conformal coating with secondary heat-cure	FR4, glass, CAP, PU, PS, steel, SAN
<b>Dymax 1193-M</b> DYM 1193-M	Medical devices; recommended for high speed manufacturing	PC, PP, SS

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Adhesive	Typical Application	Substrates
<b>Dymax 1202-M-SC</b> DYM 1202-M-SC	Medical devices; flexible adhesive formulated with See-Cure technology	PC, PVC, PU, ABS, PET, PEBA
<b>Dymax 1406-M</b> DYM 1406-M	Medical devices; LED-Curable adhesives for plastics and metal and high speed needle bonding	ABS, PC, PEI, PETG, PMMA, PS, SS, PVC
<b>Dymax 1901-M</b> DYM 1901-M	Medical devices; LED-Curable electronics coating with secondary heat cure	FR4, glass, metal, ceramic, glass-filled epoxy
<b>Dymax 215-CTH-UR-SC</b> DYM 215-CTH-UR-SC	Medical devices; LED-Curable plastic bonding adhesive formulated with Encompass technology	ABS, Nylon, 12, PC, PEBA, PET, PVC

## Dymax See-Cure Technology

DYMAX have answered the two most important questions in the adhesive industry:

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## ■ How can I tell where the adhesive has been applied?

DYMAX adhesives formulated with *See-Cure* technology are bright blue in their uncured state. This makes it easy to see where the adhesive has been dispensed onto substrates. Any voids in the bond-line can be immediately corrected before curing.

## ■ How do I know the adhesive is cured?

You can tell the adhesive is cured because it changes from blue to clear when exposed to UV light. You can see the bond-line has been completely cured, so you're assured the part won't fail.



## Other Information

### DYMAX UV LED Curable Medical Device Adhesives

Curing with UV LED lamps offers medical device manufacturers some significant benefits. The [DYMAX BlueWave LED Prime UVA Spot Curing System](#) is our leading lamp for small area cure.

We sell and support the **DYMAX** range of specially formulated [LED-curable adhesives for your medical device assembly projects](#).

# DYMAX MD® UV Adhesives for Medical Device Assembly



Our [Technical Articles and White Papers](#) page has links to:

- [“Instant” On-Line QC With New Fluorescing UV/Visible Light Curing Adhesives](#) – by Peter Swanson
- [Ensuring the Reliability of Disposable Syringes with Light-Cure Adhesives](#) – by DYMAX Corp

## Ordering Information

Find out more information on [how to purchase](#).

Our technical team are on hand to discuss your application requirements, [click here](#) to get in touch.

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