

Bomar[®] BRC-841 Difunctional Aliphatic Hydrophobic Urethane Acrylate

APPLICATIONS

- Coatings and inks for steel
- Coatings and inks for plastic

FEATURES

- Improves adhesion
- Enhances hardness
- Non-yellowing
- Low water absorption

FEATURES

- Increases weatherability
- Provides abrasion resistance
- Gloss finish
- Excellent chemical resistance

BRC-841 is a low-molecular-weight, difunctional, hydrophobic urethane acrylate that can be effectively formulated for steel and various plastic hard coatings. The resulting hard, tough film makes an effective non-yellowing protective single-coating. The low water absorption and alkaline resistance make BRC-841 ideal for the following industries: aerospace, automotive, appliances, cosmetic, electronic, industrial, medical devices, metal finishing, and UV-curable inks and coatings.

| UNCURED PROPERTIES | |
|-----------------------------------|--------|
| Property | Value |
| Viscosity, cP (60°C) | 13,000 |
| Pt-Co (APHA) Color | 20 |
| Refractive Index (25°C) | 1.495 |
| Density, g/cm ³ (25°C) | 1.14 |

| CURED MECHANICAL PROPERTIES | | | | | | |
|---|-------|-------|-------|-------|-------|-------|
| Property | I30 | I50 | TM50 | TP50 | H50 | HE30 |
| Tensile Strength, psi** | 7,500 | 9,500 | 7,500 | 6,000 | 6,700 | 4,800 |
| Elongation, %** | 4.7 | 3.9 | 2.2 | 3 | 4.4 | 7.6 |
| Elastic Modulus, ksi** | 290 | 360 | 400 | 280 | 240 | 240 |
| Durometer Hardness | 86D | 85D | 91D | 84D | 86D | 86D |
| Water Absorption, % (24 hrs) | 0.37 | 0.25 | 0.44 | 0.60 | 0.43 | 1.72 |
| MEK Double Rubs (#) | 10 | 6 | >200 | 86 | 170 | 63 |
| T _g (DMA) = 96°C; Peak tan delta; cured with 2 phr of Omnirad [®] 184 | | | | | | |

** Per ASTM D882

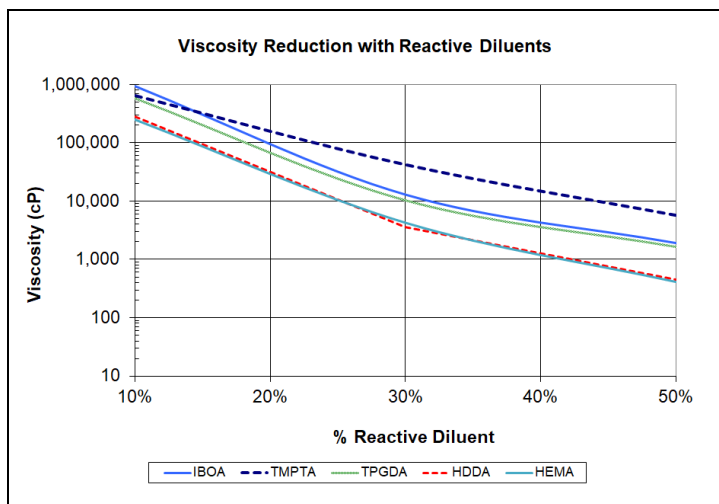
| ADHESION PROPERTIES | | | | | | |
|---------------------|-----|-----|------|------|-----|------|
| Substrate | I30 | I50 | TM50 | TP50 | H50 | HE30 |
| ABS | ✓ | | ✓✓✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ |
| Aluminum | | | | | | |
| Cold Rolled Steel | | | | | | |
| Glass | | | | | | ✓ |
| HDPE | | | | | | |
| PET | ✓✓✓ | ✓✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ |
| PMMA | ✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ | |
| Polycarbonate | ✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ | |
| Polypropylene | | | | | | |
| PVC | ✓✓✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ | ✓✓ |
| Stainless Steel | | | | | | |

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

| Test Formulation Name | I30 | I50 | TM50 | TP50 | H50 | HE30 |
|--------------------------|--------|-------|-------|-------|-----|-------|
| BRC-841 | 70 | 50 | 50 | 50 | 50 | 70 |
| IBOA | 30 | 50 | | | | |
| TMPTA | | | 50 | | | |
| TPGDA | | | | 50 | | |
| HDDA | | | | | 50 | |
| HEMA | | | | | | 30 |
| Omnirad [™] 184 | 2 | 2 | 2 | 2 | 2 | 2 |
| Viscosity, 25°C * | 13,000 | 1,900 | 5,700 | 1,700 | 500 | 4,200 |

* Brookfield – CAP 2000+ @ 25°C.



Brookfield – CAP 2000+ @ 25°C

GENERAL INFORMATION

This product is intended for industrial use only. Keep out of the reach of children. Avoid breathing vapors. Avoid contact with skin, eyes, and clothing. Wear impervious gloves. Repeated or continuous skin contact with uncured material may cause irritation. Remove material from skin with soap and water. Never use organic solvents to remove material from skin and eyes. For more information on the safe handling of this material, please refer to the I Safety Data Sheet before use.

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