ARclear® 92170 (Formerly 90684)
Self Wetting Adhesive Surface Protection Film
Anti-Glare Hardcoated Film with Self Wetting Adhesive

FEATURES

- Adhesive virtually self applies by spontaneously ‘wetting out’ on to smooth surfaces
- Enables very low pressure lamination
- Cleanly removable, even after extended periods of time
- Able to be repositioned, repeatedly
- Ultra low peels with no buildup
- High shear resistance prevents displacement
- Supplied on an anti-glare, scratch and chemically resistant film

BENEFITS

- Enables optical quality laminations in the field by unskilled end user
- Reduces damage to surface of touch screen or display
- Protects optical quality of display or touch screen surface
- Excellent stylus registration in touch screens
- Environmentally durable
- Easily die cut to fit intended display surface dimensions

PRODUCT APPLICATIONS

Suggested for temporary protection to the surface of touch screens and flat panel displays in high use, abusive or harsh environments. Removability enables protection film to be replaced when damaged, protecting the more sensitive and expensive display device below. All pressure-sensitive tapes require an application surface that is clean and dry. Users should assure the product meets the specific needs of their application(s). Adhesives Research can tailor the product to meet the needs of specific applications as requested by customers.

PRODUCT PROFILE

90 Gloss, Anti-Glare Hardcoated Polyester .003" (75µm) 3H Pencil Hardness (ASTM D3363)
Self Wetting Adhesive .002" (51µm)
Polyester Liner .0015" (38µm)

ADHESIVE PERFORMANCE PROPERTIES – Typical Values*

180° Peel Adhesion, 12”/min.
5min dwell from glass 6 g/in.

180° Peel Adhesion, 12”/min.
24 hours dwell from glass 6 g/in.

Reference Test Methods: PSTC-101, ASTM D-3330, ART #1005

OPTICAL PROPERTIES – Typical Values*

<table>
<thead>
<tr>
<th></th>
<th>Self Wetting Adhesive</th>
<th>AG 90 Film</th>
<th>Test Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refractive Index</td>
<td>1.468</td>
<td>1.52</td>
<td></td>
</tr>
<tr>
<td>Visible Light Transmission</td>
<td>99%</td>
<td>90%</td>
<td>Gardner haze meter</td>
</tr>
<tr>
<td>Haze</td>
<td>&lt;0.5</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Clarity</td>
<td>99%</td>
<td>68%</td>
<td></td>
</tr>
</tbody>
</table>

*All stated values are nominal and should only be used as a guide for selection. They are not specifications.

STORAGE AND SHELF LIFE

Unconverted product should be stored at 70°F ± 20°F (21°C ± 11°C) and 50% ± 20% relative humidity, out of direct sunlight. The shelf life of the product is not to exceed one year from date of manufacture.
ENVIRONMENTAL AGING DATA

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shelf Stability</th>
<th>Quality of Lamination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chemistry</td>
<td>Adhesion</td>
</tr>
<tr>
<td>80°C 240 hours</td>
<td>Stable</td>
<td>No change</td>
</tr>
<tr>
<td>-30°C 240 hours</td>
<td>Stable</td>
<td>No change</td>
</tr>
<tr>
<td>-30°C to 70°C 10 cycles, 40 min dwell time</td>
<td>Stable</td>
<td>No change</td>
</tr>
</tbody>
</table>

SERVICE TEMPERATURE RANGE

Recommended minimum application temperature: 40°F (5°C)

Avoid prolonged exposure to water.
Product construction, adhesive thickness and level can be tailored to application needs.

Note: The information contained on this data sheet is based upon test results of limited quantities of this material and may be modified by Adhesives Research following additional production experience and evaluation. This data should not be used in preparing specifications. Products identified as developmental may be subject to modification by Adhesives Research, Inc.

(Revised 2 December 2008)

APPLICATION AND STORAGE OF PRESSURE-SENSITIVE ADHESIVE TAPES

Pressure-sensitive adhesive tapes function as a mechanical product; however, the adhesive itself is a chemical composition that can be sensitive to environmental conditions. A purchaser of pressure-sensitive adhesive products should be aware of the shelf life of each product and not purchase more than it can use before the expiration date. Shipping and storage conditions affect shelf life. The optimum storage temperature is 70°F (21°C). Cool, dry storage is recommended.

For best results...
1) The surfaces you wish to bond should be clean and free of oil, moisture and dust. If the surface temperature is below 40°F, it may be difficult to achieve a proper bond.
2) Do not use a pressure-sensitive adhesive product where it will be exposed to temperatures lower or higher than those designated for each product. Heat can destroy the effectiveness of the bond and extreme cold can cause the adhesive to harden and not adhere properly.
3) When the tape is applied, use firm hand or lamination pressure to achieve contact between the adhesive and the surface to which it is applied. Hand rollers or nip rollers may be needed for certain products or applications.

Consult your Adhesives Research sales representative if you need additional information.

THIS IS NOT AN OFFER

This Product Information sheet ("PI Sheet") is not an offer to sell by Adhesives Research ("AR") and does not contain any binding warranties or terms of sale. While this PI Sheet does contain technical information and general warranty information, this PI Sheet is non-binding and is for information purposes only. If you wish to purchase the product set forth on this PI Sheet ("Product"), or have any questions regarding the warranty or other terms related to this Product, contact AR customer service or a sales representative and they will provide you with AR’s terms of sale for the Product in the form of a Sales Order Acknowledgment. AR shall not be bound by any terms or information set forth in this PI Sheet.

DISCLAIMER OF WARRANTIES

AR’s warranty on product is limited to the warranty set forth in the Sales Order Acknowledgment. NOTHING SET FORTH IN THIS PRODUCT INFORMATION SHEET SHALL CONSTITUTE A WARRANTY OF ANY KIND AND EXCEPT AS SET FORTH IN THE SALES ORDER ACKNOWLEDGMENT. UNLESS OTHERWISE STATED IN A SALES ORDER ACKNOWLEDGMENT, AR EXPRESSLY DISCLAIMS ALL WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No provisions, statements, diagrams, drawings or pictures contained in any product literature, price list, catalogue, purchase order, product data sheet, order acknowledgment, invoice, delivery ticket, or any other communication by AR, including information on AR’s website or statements made by AR’s employees or agents, constitute express warranties. Results of tests and recommendations included in communications of AR do not constitute express warranties. MANY FACTORS MAY AFFECT THE USE AND PERFORMANCE OF AN AR PRODUCT IN A PARTICULAR APPLICATION, INCLUDING, AMONG OTHERS, THE PRODUCT SELECTED FOR USE, THE CONDITIONS IN WHICH THE PRODUCT IS USED, THE TIME AND ENVIRONMENTAL CONDITIONS IN WHICH THE PRODUCT IS EXPECTED TO PERFORM, THE MATERIALS TO BE USED WITH THE PRODUCT, THE SURFACE PREPARATION OF THOSE MATERIALS, AND THE APPLICATION METHOD FOR THE PRODUCT; THEREFORE, PURCHASER ACCEPTS RESPONSIBILITY FOR DETERMINING WHETHER AR’S PRODUCT IS FIT FOR A PARTICULAR PURPOSE AND SUITABLE FOR PURCHASER’S METHOD OF APPLICATION. AR retains the right to modify or change its products if in AR’s judgment it is advisable.

AR limits the purchaser’s remedies in the event of a breach of any warranty. The purchaser’s exclusive remedy and AR’s obligations for a breach of any warranty shall be as set forth in the Sales Order Acknowledgment.

ARclear® is a registered trademark of Adhesives Research, Inc. Adhesives Research® is a registered service mark of Adhesives Research, Inc. for engineering and design services in the field of pressure-sensitive adhesive systems.

©2008 Adhesives Research, Inc. Printed in USA.