

### TECHNICAL BULLETIN # 3

- |                               |  |                 |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
|-------------------------------|--|-----------------|------------|---------------|-----------------------|---------------|--------|----------------|---------|---------------|-----------------|----------------|---------|---------------|--------|----------------|---------|-----------------|
| 1.                            | National Bureau of Standards Voluntary Product Standard <b>PS 17-69</b> :  | <b>COMPLIES</b> |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| 2.                            | Federal Specification <b>LP 378D</b> , Type 1, Class 1, Grade A, Finish 1:   | <b>COMPLIES</b> |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| 3.                            | American Society for Testing and Materials <b>ASTM D 4397-91</b> Standard Specification for polyethylene Sheeting for Construction, Industrial, and Agricultural Applications:   | <b>COMPLIES</b> |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| 4.                            | <p><b>ASTM E-96-90</b>, requiring that water vapor permeance shall be no greater than 1.40 grams per 100 square inches per 24 hours for film 1 mil thick, inversely proportional for other thickness. Expressed in perms, not to exceed:</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">.001" (1 Mil)</td> <td style="width: 25%;">0.76 Perms</td> <td style="width: 25%;">.008" (8 Mil)</td> <td style="width: 25%;">0.10 Perms</td> </tr> <tr> <td>.002" (2 Mil)</td> <td>0.38 "</td> <td>.010" (10 Mil)</td> <td>0.076 "</td> </tr> <tr> <td>.004" (4 Mil)</td> <td>0.19 "</td> <td>.015" (15 Mil)</td> <td>0.057 "</td> </tr> <tr> <td>.006" (6 Mil)</td> <td>0.13 "</td> <td>.020" (20 Mil)</td> <td>0.038 "</td> </tr> </table> | .001" (1 Mil)   | 0.76 Perms | .008" (8 Mil) | 0.10 Perms            | .002" (2 Mil) | 0.38 " | .010" (10 Mil) | 0.076 " | .004" (4 Mil) | 0.19 "          | .015" (15 Mil) | 0.057 " | .006" (6 Mil) | 0.13 " | .020" (20 Mil) | 0.038 " | <b>COMPLIES</b> |
| .001" (1 Mil)                 | 0.76 Perms   | .008" (8 Mil)   | 0.10 Perms |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| .002" (2 Mil)                 | 0.38 "   | .010" (10 Mil)  | 0.076 "    |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| .004" (4 Mil)                 | 0.19 "   | .015" (15 Mil)  | 0.057 "    |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| .006" (6 Mil)                 | 0.13 "   | .020" (20 Mil)  | 0.038 "    |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| 5.                            | <b>ASTM G-156</b> , Moisture Retention, requiring that loss of water will not exceed 0.055 G/CM <sup>2</sup> :   | <b>COMPLIES</b> |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| 6.                            | <p><b>ASTM D-882-91</b> Method A requiring the following mechanical properties:</p> <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="width: 35%; text-align: center;">Lengthwise</td> <td style="width: 35%; text-align: center;">Crosswise</td> </tr> <tr> <td>Tensile Strength, psi</td> <td style="text-align: center;">1700</td> <td style="text-align: center;">1200</td> </tr> <tr> <td>Elongation, %</td> <td style="text-align: center;">350</td> <td style="text-align: center;">225</td> </tr> </table>  |                 | Lengthwise | Crosswise     | Tensile Strength, psi | 1700          | 1200   | Elongation, %  | 350     | 225           | <b>COMPLIES</b> |                |         |               |        |                |         |                 |
|                               | Lengthwise   | Crosswise       |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| Tensile Strength, psi         | 1700   | 1200            |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| Elongation, %                 | 350  | 225             |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| 7.                            | Federal Specification <b>LS-137</b> , requiring no evidence of fungus growth:  | <b>COMPLIES</b> |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| 8.                            | Minimum requirements set forth in Federal Specification <b>UUP-147B</b> and <b>F. H. A. Bulletin UM20A</b> :   | <b>COMPLIES</b> |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| 9.                            | American Society for testing and Materials, <b>ASTM D2103-86</b> :   | <b>COMPLIES</b> |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| 10.                           | <b>ASTM E154-68</b> , Methods of Testing Materials for use as Vapor Barriers Under Concrete Slabs and as Ground Cover in Crawl Spaces:   | <b>COMPLIES</b> |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| <b>WHITE 4 MIL FILM ONLY:</b> |  |                 |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |
| 11.                           | <b>ASTM C171-69</b> , Standard Specification for Sheet Materials for Curing Concrete:  | <b>COMPLIES</b> |            |               |                       |               |        |                |         |               |                 |                |         |               |        |                |         |                 |

## MATERIAL SAFETY DATA SHEET

### SECTION I

**PRODUCT NAME :** POLYETHYLENE FILM  
**SIZES:** VARIOUS, RANGING IN THICKNESS BETWEEN .00035" & .020"  
**CHEMICAL NAME:** POLYETHYLENE **FORMULA:** (C<sub>2</sub>H<sub>4</sub>)<sub>n</sub>  
**MANUFACTURER:**

**FOR INFORMATION ON HEALTH HAZARDS CALL:**  
**FOR OTHER INFORMATION CALL:** SAME AS ABOVE  
**INFORMATION EFFECTIVE AS OF:** JUNE, 1986

### SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

PRINCIPAL HAZARDOUS COMPONENT (S)	%	TLV (UNITS)
	NOT APPLICABLE	

### SECTION III PHYSICAL DATA

**BOILING POINT (DEGREES F):** NOT APPLICABLE  
**SPECIFIC GRAVITY (H<sub>2</sub>O=1):** .910 - .965  
**VAPOR PRESSURE (mm HG.):** NOT APPLICABLE  
**PERCENT VOLATILE BY VOLUME (%):** NOT APPLICABLE  
**EVAPORATION RATE:** NOT APPLICABLE  
**APPEARANCE AND ODOR:** PLASTIC FILM, CLEAR OR COLORED, OF VARIOUS SIZES, WITH LITTLE OR NO ODOR.

### SECTION IV FIRE AND EXPLOSION HAZARD DATA

**FLASH POINT (METHOD USED):** NOT APPLICABLE  
**FLAMMABLE LIMITS:** NOT APPLICABLE  
**EXTINGUISHING MEDIA:** WATER SPRAY, DRY CHEMICAL, CO<sub>2</sub>  
**SPECIAL FIRE-FIGHTING PROCEDURES:** SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING SHOULD BE WORN IN FIGHTING FIRES INVOLVING CHEMICALS.  
**UNUSUAL FIRE AND EXPLOSION HAZARD:** NONE

SPECIALIZING IN BUILDING AND AGRICULTURAL POLYETHYLENE SHEETING

-----SECTION V HEALTH HAZARD DATA-----

**THRESHOLD LIMIT VALUE:** NOT ESTABLISHED.  
**EFFECTS OF OVEREXPOSURE:** NOT ESTABLISHED.  
**EMERGENCY AND FIRST AID PROCEDURES:** IF BURNED BY CONTACT WITH HOT PLASTIC, COOL MOLTEN MATERIAL ADHERING TO THE SKIN AS QUICKLY AS POSSIBLE WITH COLD WATER, AND SEE A PHYSICIAN FOR REMOVAL OF ANY ADHERING MATERIAL, AND TREATMENT OF THE BURN.

-----SECTION VI REACTIVITY REPORT-----

**STABILITY:** UNSTABLE\_\_\_ STABLE X  
**CONDITIONS TO AVOID:** NOT APPLICABLE  
**INCOMPATIBILITY (MATERIALS TO AVOID):** OXIDIZING MATERIALS CAN CAUSE A REACTION.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** AS WITH ANY OTHER ORGANIC MATERIAL, COMBUSTION WILL PRODUCE CARBON DIOXIDE AND PROBABLY CARBON MONOXIDE.  
**HAZARDOUS POLYMERIZATION:** WILL NOT OCCUR.

-----SECTION VII SPILL OR LEAK PROCEDURES-----

**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** COLLECT AND CONTAIN FOR SALVAGE / DISPOSAL.  
**WASTE DISPOSAL METHOD:** INCINERATION OR LANDFILL. OBSERVE ALL FEDERAL, STATE AND LOCAL LAWS CONCERNING HEALTH AND POLLUTION.

-----SECTION VIII SPECIAL PROTECTION EQUIPMENT-----

**RESPIRATORY PROTECTION;** NONE SHOULD BE REQUIRED.  
**VENTILATION - LOCAL EXHAUST:** IF NEEDED TO CONTROL DUST OR FUMES.  
 - MECHANICAL (GENERAL): RECOMMENDED.  
 - SPECIAL: NONE KNOWN  
 - OTHER: NONE KNOWN  
**PROTECTIVE GLOVES:** SHOULD BE WORN TO PROTECT AGAINST THERMAL BURNS.  
**EYE PROTECTION:** SAFETY GLASSES SHOULD BE WORN IN ANY TYPE OF INDUSTRIAL OPERATION.  
**OTHER PROTECTIVE EQUIPMENT:** SAFETY SHOWER.

**SECTION IX SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: DO NOT STORE  
NEAR HEAT, FLAME, OR STRONG OXIDANTS.**

**HEALTH HAZARD DATA CONTAINED HEREIN WAS OBTAINED FROM  
SUPPLIERS OF RAW MATERIALS. INFORMATION CONTAINED HEREIN IS  
FURNISHED WITHOUT WARRANTY OF ANY KIND. EMPLOYERS SHOULD USE  
THIS INFORMATION ONLY AS A SUPPLEMENT TO OTHER INFORMATION  
GATHERED BY THEM, AND MUST MAKE INDEPENDENT DETERMINATIONS OF  
SUITABILITY AND COMPLETENESS OF INFORMATION FROM ALL SOURCES TO  
ASSURE PROPER USE OF THESE MATERIALS AND THE SAFETY AND HEALTH  
OF EMPLOYEES.**