

## Fire-rated sheet

Andax uses a unique PVC/ABS product in the construction of the Xtreme Shell Pipe Flange Containment System. It meets many industry flammability standards. It is recognized under the component program of Underwriters Laboratories, Inc. with a classification of 94V-1 at 0.058", 94V-0 at 0.085" and 94-5VA at 0.085". It combines very high impact strength with excellent ductility and formability.

### Technical Properties

| Property   | Test Method | Value*                              |
|--|-------------|-------------------------------------|
| Specific Gravity (color dependent)                 | ASTM D-792  | 1.18-1.25                           |
| Tensile Strength                                   | ASTM D-638  | 5,000 psi                           |
| Flexural Strength                                  | ASTM D-790  | 7,800 psi                           |
| Flexural Modulus                                   | ASTM D-790  | 280,000 psi                         |
| Izod Impact (Notched) 72°F                         | ASTM D-256  | 8.0 ft-lbs/in                       |
| Izod Impact (Notched) -40°C                        | ASTM D-256  | 1.8 ft-lbs/in                       |
| Rockwell Hardness (R Scale)                        | ASTM D-785  | 93                                  |
| Heat Deflection Temperature (@ 264 psi - annealed) | ASTM D-648  | 175°F                               |
| Coefficient of Linear Thermal Expansion            | ASTM D-696  | 4.6 - 5.5x10 <sup>-5</sup> in/in/°F |
| Mold Shrinkage                                     | Internal    | 0.005 - 0.007 in/in                 |
| Motor Vehicle Safety Standard                      | FMVSS 302   | Passes                              |
| Flammability                                       | UL 94 V-0   | Listed @ 0.085"                     |
| Flammability                                       | UL 94-5VA   | Listed @ 0.085"                     |
| Radiant Panel (Flame Spread Index)                 | UL 94       | RP50                                |
| Relative Thermal Index (Electrical)                | UL 746      | 85°C at ≥ 0.086"                    |
| Relative Thermal Index (Mech. w/impact)            | UL 746      | 70°C ≥ 0.086"                       |
| Relative Thermal Index (Mech. w/o impact)          | UL 746      | 85°C ≥ 0.086"                       |

\*All values based on 0.125" unless otherwise stated

### Chemical Resistance of ABS/PVC Materials

| Chemical                | 7 Days Immersion at 73°F | Chemical                 | 7 Days Immersion at 73°F |
|-------------------------|--------------------------|--------------------------|--------------------------|
| 5% Acetic Acid          | No Change                | Margarine                | No Change                |
| Acetone                 | Attacked                 | Mayonnaise               | No Change                |
| Ammonium Hydroxide      | No Change                | Methyl Ethyl Ketone      | Attacked                 |
| 10% Ammonium Hydroxide  | No Change                | Milk                     | No Change                |
| Beer                    | No Change                | Mustard                  | No Change                |
| Butter                  | No Change                | Naphtha                  | No Change                |
| Carbon Tetrachloride    | Attacked                 | 70% Nitric Acid          | Attacked                 |
| Castor Oil              | No Change                | 50% Nitric Acid          | Attacked                 |
| Catsup                  | No Change                | 30% Nitric Acid          | Color Change             |
| 10% Citric Acid         | No Change                | 10% Nitric Acid          | No Change                |
| Clorox Bleach           | No Change                | Oleic Acid               | No Change                |
| Coca Cola               | No Change                | Orange Juice             | No Change                |
| Coffee                  | No Change                | 62% Perchloric Acid      | No Change                |
| Cottonseed Oil          | No Change                | 50% Perchloric Acid      | No Change                |
| Ethyl Alcohol           | Attacked                 | Petroleum Grease         | No Change                |
| 95% Ethyl Alcohol       | Attacked                 | Petroleum Oil            | No Change                |
| 50% Ethyl Alcohol       | Attacked                 | 5% Phenol                | Attacked                 |
| Ethylene Dichloride     | Attacked                 | 40% Potassium Dichromate | No Change                |
| Ethylene Glycol         | No Change                | 2% Sodium Carbonate      | No Change                |
| Fantastik Spray Cleaner | No Change                | 10% Sodium Chloride      | No Change                |
| Grape Jelly             | No Change                | 10% Sodium Hydroxide     | No Change                |
| Glycerin                | No Change                | 1% Sodium Hydroxide      | No Change                |
| Heptane                 | Attacked                 | 30% Sulfuric Acid        | Slight Attack            |
| 10% Hydrochloric Acid   | No Change                | 3% Sulfuric Acid         | No Change                |
| 50% Hydrofluoric Acid   | Attacked                 | Toluene                  | Attacked                 |
| 10% Hydrofluoric Acid   | No Change                | Tomato Juice             | No Change                |
| 3% Hydrogen Peroxide    | No Change                | Trichloroethylene        | Attacked                 |
| Isopropyl Alcohol       | No Change                | Vanilla Extract          | No Change                |
| Kerosene                | Attacked                 | Vinegar                  | No Change                |
| Lard                    | No Change                | Water                    | No Change                |
| Lemon Juice             | No Change                | Whiskey                  | No Change                |

Ratings as given reflect overall observable changes and are given for purposes of general comparison only. They are offered in good faith, but without guarantee, as conditions and methods of use of our products are beyond our control. Users are advised to make their own test to determine the safety and suitability of each product for their own purposes.