

| MECHANICAL AND METAL BUILDING INSULATION COVERING PRODUCTS                                                                                                                                                                                                                                 |                                                                             |                    |                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------|
| STRUCTURE CATEGORY                                                                                                                                                                                                                                                                         | NOTES ON CONSTRUCTION                                                       | ASTM SPECIFICATION | NIA MEMBER MANUFACTURERS                                                                                               |
| FACINGS / VAPOR RETARDERS FOR MECHANICAL INSULATION                                                                                                                                                                                                                                        |                                                                             |                    |                                                                                                                        |
| All Service Jacket (ASJ)                                                                                                                                                                                                                                                                   | White paper exposed surface                                                 | C1136              | Lamtec Corp.                                                                                                           |
| All Service Jacket (ASJ)                                                                                                                                                                                                                                                                   | "Poly surface"; polymer film exposed surface                                | C1136              | Lamtec Corp.                                                                                                           |
| Polyvinylidene chloride (PVDC)                                                                                                                                                                                                                                                             | Mono-layer film, various thicknesses                                        | C1136              | Johns Manville                                                                                                         |
| Poly-Foil-Poly (PFP)                                                                                                                                                                                                                                                                       | Nominal one mil foil between two film layers                                | C1136              | Polyguard Products                                                                                                     |
| Foil-Scrim-Kraft (FSK)                                                                                                                                                                                                                                                                     | Various reinforcing and foil gauge versions                                 | C1136              | Lamtec Corp.                                                                                                           |
| Laminate Jacket                                                                                                                                                                                                                                                                            | Various combinations and number of layers, self-adhering or w/o adhesive    | C1775              | Ideal Products, 3M                                                                                                     |
| Chlorsulfonated Polyethylene (CSPE) Rubber                                                                                                                                                                                                                                                 | Synthetic rubber (CSM) sheet; also known as "Hypalon"                       | --                 | Armacell                                                                                                               |
| PROTECTIVE COVERS/JACKETING FOR MECHANICAL INSULATION                                                                                                                                                                                                                                      |                                                                             |                    |                                                                                                                        |
| Glass fiber cloth                                                                                                                                                                                                                                                                          | Various thicknesses, weights & colors, coated with PTFE, silicone and other | --                 | Alpha Engineered Composites, Lewco Specialty Products, Textiles Coated International                                   |
| Glass fiber, scrim or mesh                                                                                                                                                                                                                                                                 | Various patterns and yarn sizes                                             | --                 | Lewco Specialty Products, Morgan Advanced Matls.                                                                       |
| Glass reinforced polymer (GRP)                                                                                                                                                                                                                                                             | Various weights, thicknesses, colors                                        | --                 |                                                                                                                        |
| Laminate protective jacket                                                                                                                                                                                                                                                                 | Various combinations and number of layers, self-adhering or w/o adhesive    | C1775              | Foster Products, Ideal Tape, Polyguard Products, 3M                                                                    |
| Metal, aluminum                                                                                                                                                                                                                                                                            | Various gauges, linings, coatings, embossed/corrugated                      | C1729              | Johns Manville, Ideal Products, Integrated Mktg Group, Morgan Advanced Matls., RPR Products, Standard Metal Industries |
| Metal, stainless steel                                                                                                                                                                                                                                                                     | Various gauges, linings, coatings, embossed/corrugated                      | C1767              | Johns Manville, RPR, Ideal, Standard Metal Industries                                                                  |
| Metal, steel                                                                                                                                                                                                                                                                               | Various gauges, linings, coatings, embossed/corrugated                      | --                 | R.P.R. Products                                                                                                        |
| Modified asphalt/modified bitumen                                                                                                                                                                                                                                                          | Various thicknesses, compounds, foil film, with or w/o glass-reinforcements | C1916              | Polyguard Products, MFM Building Products, Owens Corning                                                               |
| Plastic                                                                                                                                                                                                                                                                                    | PVF and various other polymers, gauges, colors                              | --                 | Dupont, Foster Products, Integrated Marketing Group                                                                    |
| Polyvinyl chloride (PVC)                                                                                                                                                                                                                                                                   | Various gauges, colors                                                      | C1917              | Johns Manville, Proto Corp., SpeedLine, Integrated Marketing Group,                                                    |
| Self-Adhering                                                                                                                                                                                                                                                                              | Various base jacketing structures                                           | --                 | Foster Products, Ideal Tape, Polyguard Products, 3M                                                                    |
| Silica Fabric                                                                                                                                                                                                                                                                              | Various weights, configurations, finishes                                   | --                 | Alpha Engineered Composites, Integrated Marketing Group, Lewco Specialty Products                                      |
| Specialty Textiles                                                                                                                                                                                                                                                                         | Woven products of various base materials, weights, configurations, coatings | --                 | Alpha Engineered Composites, Integrated Marketing Group, Morgan Advanced Matls.                                        |
| OUTER FACINGS/COVERINGS FOR REMOVEABLE JACKETING, REMOVEABLE COVERS, AND BLANKETS                                                                                                                                                                                                          |                                                                             |                    |                                                                                                                        |
| Glass fiber cloth                                                                                                                                                                                                                                                                          | Various thicknesses, weights & colors, coated with PTFE or silicone         | C1695              | Alpha Engineered Composites, Lewco Specialty Products, Textiles Coated Intl.                                           |
| Glass fiber laminated with PTFE film                                                                                                                                                                                                                                                       | Various thicknesses, weights & colors                                       | C1695              | Textiles Coated Intl.                                                                                                  |
| Fluoropolymer film (fiber-free)                                                                                                                                                                                                                                                            | Various thicknesses, weights & colors                                       | C1695              | Textiles Coated Intl.                                                                                                  |
| FACINGS / VAPOR RETARDERS FOR METAL BUILDING INSULATION                                                                                                                                                                                                                                    |                                                                             |                    |                                                                                                                        |
| Poly-Scrim-Kraft (PSK)                                                                                                                                                                                                                                                                     | Various kraft paper, reinforcing and film versions                          | C1136              | Lamtec Corp.                                                                                                           |
| Poly-Scrim-Kraft-Poly (PSKP)                                                                                                                                                                                                                                                               | Inside poly film is metalized                                               | C1136              | Lamtec Corp.                                                                                                           |
| Foil-Scrim-Kraft (FSK)                                                                                                                                                                                                                                                                     | Typically 30 lb. kraft backed                                               | C1136              | Lamtec Corp.                                                                                                           |
| Poly-Scrim-Poly (PSP)                                                                                                                                                                                                                                                                      | Inside poly film is metalized                                               | C1136              | Lamtec Corp.                                                                                                           |
| Poly-Fabric                                                                                                                                                                                                                                                                                | Heavy fabric reinforcing                                                    | C1136              | Lamtec Corp.                                                                                                           |
| Foil-Fabric                                                                                                                                                                                                                                                                                | Heavy fabric reinforcing                                                    | C1136              | Lamtec Corp.                                                                                                           |
| Embossed vinyl                                                                                                                                                                                                                                                                             | Mono-layer plasticized PVC film                                             | --                 |                                                                                                                        |
| Seamed Liner                                                                                                                                                                                                                                                                               | Various all-polymer structures                                              | --                 |                                                                                                                        |
| ASTM SPECIFICATIONS / MATERIAL SPECIFICATIONS / STANDARDS                                                                                                                                                                                                                                  |                                                                             |                    |                                                                                                                        |
| C1136: Standard Specification for Low Permeance, Flexible Vapor Retarders for Thermal Insulation                                                                                                                                                                                           |                                                                             |                    |                                                                                                                        |
| C1695: Standard Specification for Fabrication of Flexible Removable and Reusable Blanket Insulation for Hot Service                                                                                                                                                                        |                                                                             |                    |                                                                                                                        |
| C1729: Standard Specification for Aluminum Jacketing for Insulation                                                                                                                                                                                                                        |                                                                             |                    |                                                                                                                        |
| C1767: Standard Specification for Stainless Steel Jacketing for Insulation                                                                                                                                                                                                                 |                                                                             |                    |                                                                                                                        |
| C1775: Standard Specification for Laminate Protective Jacket and Tape for Use over Thermal Insulation for Outdoor Applications                                                                                                                                                             |                                                                             |                    |                                                                                                                        |
| C1916 - Standard Specification for Flexible Protective Jackets Made of Modified Asphalt/Butyl Rubber for Use over Thermal Insulation                                                                                                                                                       |                                                                             |                    |                                                                                                                        |
| C1917 - Standard Specification for Rigid Polyvinyl Chloride (PVC) Jacketing for Insulation                                                                                                                                                                                                 |                                                                             |                    |                                                                                                                        |
| The listed ASTM specifications contain various types/grades/classes that provide physical property, performance and construction requirements for covered products. For further information on ASTM specification requirements and product conformance, consult product technical literatu |                                                                             |                    |                                                                                                                        |