Table 63.1. Summary of results of analyses of 53 commercially primed canvases using ATR‑FTIR and optical microscopy.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Binder** | **%** | **Pigments and fillers** | **%** | **Fiber type** | **%** | **Weave** | **%** |
| Acrylic-styrene | 41.4 | Chalk, titanium dioxide (TiO2) | 43.7 | Cotton | 58.5 | Plain  (1 × 1) | 58.2 |
| Acrylic | 20.9 | Chalk, TiO2,talc | 20 | Linen | 32 | Half-basket  (1 × 2) | 36.4 |
| Acrylic-PVA | 11.3 | Chalk | 9.6 | PET | 5.7 | Full-basket  (2 × 2) | 5.4 |
| Acrylic-PVA-styrene | 9.4 | Chalk, TiO2, barium sulfate (BaSO4) | 3.6 | PET-cotton | 3.8 |
| PVA | 7.5 | Gypsum | 3.6 |
| Oil | 7.5 | TiO2,kaolinite | 3.6 |
| PVA-styrene | 2.0 | Other | 15.9 |

Table 63.2. Glass transition temperatures (Tg) of common monomers and copolymers used in coatings.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| “Soft” monomers | Tg  (°C) | “Hard” monomers | Tg  (°C) | Copolymers | Tg  (°C) |
| n-Butyl acrylate (BA) | −43 | Styrene (sty) | 107 | *p*(BA-sty)  (20:80)  (40:60)  (60:40)  (80:20) | 74  41  13  −16 |
| Ethyl acrylate (EA) | −8 | Methyl methacrylate (MMA) | 105 | *p*(EA-MMA)  (20:80)  (40:60)  (60:40)  (80:20) | 81  50  24  5 |

*Source:* {{Penzel, Rieger, and Schneider 1997}}