

Technical Tuesday

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Properties of Different Textile Fibers

| S.no | Fiber | Moisture Regain | Effect on organic solvent | Effect on Alkali | Effect on Acid |
|------|-----------|-----------------|---|--|--|
| 1 | Acrylic | 1-2% | Unaffected. | Destroyed by strong alkalis at a boil, resists weak alkalies. | Resistant to most acids. |
| 2 | Polyester | 0.4% | Soluble in some phenolic compounds, otherwise unaffected. | Resistant to cold alkalies, slowly decomposed at a boil by strong alkalies. | Resistant to most mineral acids disintegrated by 96% sulphuric acid. |
| 3 | Rayon | 13% | Unaffected. | No effect by cold, weak alkalies swells and loses strength in concentrated alkalies. | Disintegrates in hot dilute and cold concentrated acids. |
| 4 | Acetate | 6.5% | Soluble in acetone, dissolved or swollen by many others. | Saponified, little effect from cold weak alkalies. | Soluble in acetic acid, decomposed by strong acids. |
| 5 | Nylon 66 | 4% | Generally unaffected, soluble in some phenolic compounds. | Little or no effect. | Decomposed by strong mineral acids, resistant to weak acids |
| 6 | Cotton | 8% | Resistant. | Swells when treated with caustic soda but is not damaged. | Disintegrates in hot dilute and cold concentrated acids. |
| 7 | Wool | 17% | Generally resistant. | Attacked by weak alkalies, Destroyed by strong alkalies. | Destroyed by hot sulphuric, otherwise unaffected by acids. |

“Wish you a Very Happy New year”

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