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Adhesives

5.1.4 Properties of Pressure-Sensitive Adhesives as a Function of Temperature; 5.1.5 Tack; 5.1.6 Peel Resistance; 5.1.7 Creep; 5.1.8 Formulations of PSAs; 5.1.8.1 Typical Formulation of Natural Rubber-Based PSAs; 5.1.8.2 Typical Formulation of Block Copolymer PSAs; 5.1.8.3 Typical Formulation of Acrylate-Based PSAs; 5.2 Contact Adhesives; 5.2.1 Composition of Contact Adhesives; 5.2.2 Properties and Fields of Application of Contact Adhesives; 5.3 Hot Melts; 5.3.1 Thermoplastic Hot Melts; 5.3.2 Hot-Seal Adhesives; 5.3.3 Plastisols; 5.3.4 Self-Bonding Varnishes; 5.3.5 Polyurethane-Based Reactive Hot Melts; 5.3.6 Epoxy Resin-Based Reactive Hot Melts; 5.3.7 Trends in Hot-Melt Technology; 5.4 Phenolic Resin Adhesives; 5.4.1 Chemistry of Phenolic Resins; 5.4.2 Formulation of Phenolic Resin Adhesives; 5.4.3 Behavior and Applications of Phenolic Resin Adhesives; 5.5 Epoxy Resin Adhesives; 5.5.1 Chemistry of Epoxy Resin Adhesives; 5.5.2 Reactions of Epoxy Resins; 5.5.3 Properties of Epoxy Resin Adhesives; 5.5.4 Formulations of Epoxy Resin Adhesives; 5.5.4.1 Epoxy Resins; 5.5.4.2 Crosslinking Agents; 5.5.4.3 Hardeners; 5.5.4.4 Flexibilizers and Additives That Improve Impact Toughness; 5.5.4.5 Fillers and Thixotroping Agents; 5.5.4.6 Further Additives; 5.5.4.7 Typical Epoxy-Resin Adhesive Formulations; 5.6 Polyurethane Adhesives; 5.6.1 Chemistry of Polyurethanes; 5.6.2 Raw Materials; 5.6.2.1 Isocyanates; 5.6.2.2 Polyols; 5.6.2.3 Catalysts; 5.6.3 Structure and Properties of Polyurethane Adhesives; 5.6.3.1 One-Part Polyurethane Adhesives; 5.6.3.2 Two-Part Polyurethane Adhesives; 5.6.4 Formulations of Polyurethane Adhesives; 5.7 Acrylate Adhesives; 5.7.1 Physically Setting Acrylates; 5.7.1.1 Solvent-Containing Acrylates

Sommario/riassunto

Both solid knowledge of the basics as well as expert knowledge is needed to create rigid, long-lasting and material-specific adhesions in the industrial or trade sectors. Information that is extremely difficult and time-consuming to find in the current literature. Written by specialists in various disciplines from both academia and industry, this handbook is the very first to provide such comprehensive knowledge in a compact and well-structured form. Alongside such traditional fields as the properties, chemistry and characteristic behavior of adhesives and adhesive joints, it also trea
