

CONTENTS AND SUBJECT INDEX

INTRODUCTION.....	1
BONDING PAPER	2
Water-Remoistenable Adhesives	2
Vinyl Pyrrolidone/Vinyl Acetate Copolymer-Plasticizer-Wax.....	2
PVP/VA Copolymer-Propylene Glycol-Hydrogenated Castor Oil	3
Acid Hydrolyzed PVA-Water Soluble Polymers.....	4
Acid Hydrolyzed Polyvinyl Acetate	6
Polyvinyl Alcohol of Controlled Hydrolysis Value with Solid Glycol and Liquid Plasticizer.....	8
Polyvinyl Alcohol Plasticized with Propylene Glycol	9
Cure Resistant Polyvinyl Alcohol-Polyvinyl Acetate Adhesive	9
Synthetic Organic Resin-Plasticizer Compositions with Good Wet Tack. . .	12
Corrugated Paperboard	14
Atactic and Isotactic Polypropylenes plus Formolite Resin.....	14
Atactic Polypropylene-EVA-Terpene Resin.....	16
Atactic Polypropylene-Polyethylene.....	18
Critical Viscosity of 15,000 to 58,000 cp for Corrugated Paperboard Application.....	19
Synthetic Rubber-Formolite Resin	21
Ethylene Vinyl Acetate-Formolite Resin.....	23
Addition of Wax to EVA-Formolite Adhesives to Improve Creep Properties.....	24
Addition of Polyhydroxy Crystalline Compound to EVA-Formolite Adhesive to Improve Repulpability.....	26
Heated Liner Applied to Cooled Adhesive on First Face.....	28
Cardboard Case Sealing.....	29
Use of Branched Elastomeric Ethylene-Propylene Terpolymers	29
Addition of Boric Additive plus Phenolic Antioxidant to Improve Melt Viscosity Stability of Branched and Linear Copolymers.....	31
DAR-B-Resin for Use with Polyolefins	34
Heat Sealable Containers.....	36
Polyethylene and Ethylene-Ethyl Acrylate Copolymer Composition— Inert to Food	36

Ternary Blend of High and Low Density Polyethylenes with Superior Hot Tack	37
Laminates.....	39
Trilayer Laminate Using Dispersion of Thermoplastic Polymer in Wax.....	39
Amorphous Polypropylene-Olefin Copolymer-Polyterpene Tackifier.....	41
Resinous Crystalline Polypropylene-Resin Tackifier-Wax.....	43
Sulfur-Dicyclopentadiene-Glass Fibers-Talc.....	45
Crystalline Polyester of Terephthalic Acid, Sebacic Acid and Tetra- methylene Glycol.....	46
Lamination of Paper Tissue.....	48
Book Binding	51
Perfect Book Binding: ABA Block Polymer-Tackifier-Stabilizer-Wax.....	51
Hard Cover Bookbinding: Isotactic Polybutylene-Tackifier-Wax.....	54
Dot Binding of Paper Sheets into Cover.....	57
Terpolymer of Vinyl Acetate, Crotonic Acid and Vinyl Stearate.....	58
Pick-Up Adhesives.....	61
Polyethylene Oxide-Polyalkylene Oxide Blend.....	61
Hydantoin-Formaldehyde Resin in Polyoxyalkylated Alkyl Phenol.....	63
Improving Specific Property of Adhesives.....	64
Addition of Acetylated Monoglyceride to Eliminate Surface Tack.....	64
Dusting with Plasticizer for Nontacky Film.....	66
Addition of Polyethylene as Antiblocking Agent.....	67
Maleated Polyethylene-Polyethylene Coatings.....	69
Terpene Modified Urethane Resin in EVA-Wax Compositions.....	70
Polypropylene Based Adhesives for Disposable Diapers.....	72
Direct Through-Feed Dispensing.....	76
Adhesive with Fire Extinguishing Properties.....	78
Styrene Resin Modifiers for EVA-Wax.....	81
Dimethyl-Alpha-Methylstyrene Resin.....	81
Dimethyl-Alpha-Methylstyrene/Alpha-Methylstyrene Copolymer.....	82
Terpolymers of Dimethyl-Alpha-Methylstyrene, Alpha-Methylstyrene, and Styrene.....	83
Terpolymers of Alpha-Methylstyrene, Tertiary Butylstyrene and Olefin.....	85
Adhesives for Use on Repulpable Paper Products.....	88
Graft Polymer of Vinyl Monomer and Polyalkylene Oxide Polymer.....	88
Half Ester Reaction Products of Maleated α -Olefins and Monohydric Alcohols.....	92
Carbonylated Polyolefin Esterified with Ethoxylated Alcohols.....	94
Natural Resins-Polyethylene Oxide Adduct.....	96
Alkali Metal Sulfonate Group with Dicarboxylic Acid Components.....	97
Paper-Plastic Bonding.....	101
Reusable Polyolefin-Paper Laminate.....	101
Dicarboxylic Acid Modified Polyolefin.....	102
➤ Paper-Glass Bonding.....	104
Improving Resistance to Humidity by Addition of Silane Compound.....	104
Condensation Product of Glycol or Monoalkylol Amine with Dibasic Acid.....	107
SHOE MANUFACTURING	110
Attachment of Shoe Uppers to Soles.....	110
Use of Radiant Heat to Soften Polyester Adhesive.....	110
High Melting Polyester-Low Melting Thermosetting Resin.....	112
Polyester from Dicarboxylic Acid Mixture and Butanediol Applied to Sole.....	113

Modified Polyethylene Terephthalate Adhesive.	116
Polyester Adhesive from 1,4-Butanediol plus Mixture of Terephthalic. Isophthalic and Hexahydroisophthalic Acids.	117
Copolyester of Mixed Phthalic Acids. Aliphatic Dicarboxylic Acids and Tetramethylene Glycol	119
Application of Viscous Hot Melt at Elevated Temperatures	120
Toe Lasting.	122
High Melting Thermoplastic Resin-Low Melting Thermosetting Resin in Stream of Heated Gas	122
Adhesive Containing an Indicator	124
Use of Rod of Polyester Adhesive Under Special Temperature Conditions.	126
Adhesives for Other Shoe Manufacturing Operations	129
Cellulosic Side-Lasting Adhesive for Temporary Bonds.	129
End Lasting Using Ribbon of Thermoplastic Adhesive	131
Linear Terpolyester Adhesive for Bond Between Insole Rib and Insole.	132
PVC Shoe Stiffener Blank Coated with Heat Activatable Adhesive.	134
Other Adhesives for Use in Shoemaking or Leather Bonding.	136
Addition of Wax to Polyester Adhesives to Shorten Setting Time.	136
Linear Polyesters from Dicarboxylic Acids and 1,4-Butanediol.	138
Thermoplastic Ester-Amide Heterophase Copolymer Resin.	140
Polyalkylene Glycol Modified Polypropylene or Cellulosic Resinous Composition	142
CARPET MANUFACTURING	144
Carpet Backsizing	144
EVA-Rosin-Polyhydric Alcohol Resin/Polyhydric Alcohol Trimer of Fatty Acid.	145
EVA-Atactic Polypropylene-Vulcanized Rubber.	147
Laminating Primary to Secondary Backing with Sheet of Hot Melt Polymer.	148
Tuft Bonding Compositions	149
Backsizing Carpets with EVA-Wax Blends	151
EVA-Wax-Rosin Derivatives	151
Use of Resin Extender Blend of Base Resin plus Modifying Resin.	153
Application of Specified Pressure with Hold-Down Roll.	155
High Filler Content Composition	158
Use of Low Viscosity Precoat Adhesive Prior to Backsizing Compound	161
Addition of LMW/HD Polyethylene and Dicyclopentadiene Alkylation Polymer to Increase R&B Point.	162
Addition of LMW Ethylene Homopolymer to Improve Tuft Bind.	164
Other Uses.	167
Laminate Structure Suitable for Carpets.	167
Thermoadhesive Carpet Sealing Tape	169
TEXTILE BONDING	173
Laminating Fabrics with Lactam Polyamides	173
Copolyamide from ϵ -Caprolactam, Diamines and Dicarboxylic Acids.	173
Polyamide Comprising Dimerized Fatty Acid. Monocarboxylic Acid. Codicarboxylic Acid. Diprimary Diamine and Caprolactam	175
Copolyamides Containing Caprolactam. Laurilactam and 11-Amino- undecanoic Acid	178
Copolyamides from ϵ -Caprolactam, Diamine Salts of Adipic Acid and Alkylene Dicarboxylic Acid Salts of Polyether Diamine	180

Polyamide from Lactam , Mixture of Aliphatic Dicarboxylic Acids and Diamine	181
Anionic Terpolyamide of 8-Octanolactam and Two Other Lactams	184
Lactam Copolyamides Containing Adhered Organic and Inorganic Compounds.....	185
Other Polyamide Adhesives.....	187
Bonding Linen Using Polyamides Based on Branched Diamines.....	187
Additive for Improving Adhesion by Copolyamide Adhesives.....	188
Polyurethanes for Heat Sealing Textile Sheets.....	190
Polyurethane from Hexane-1,6-Diisocyanate, Specific Glycol Mixture and Polyester.....	190
Thermoplastic Polyurethane from Prepolymer and Polyester.....	192
Sewing with Adhesive Threads.....	194
Synthetic Resin Fiber Thread as Binder in Lapel Tailoring.....	194
Thermoplastic Coated Rayon Yarn for Upholstery Boxing.....	195
Monofilament Adhesives.....	196
Use of High Frequency Electrical Field for Hot Melt Bonded Seams.....	196
Joining Fabric with Dry Monofilament Adhesive and Radio Frequency Heat Energy	198
Other Textile Adhesives.....	199
Protective Laminate Using Charcoal-Polyamide Resin-Microfine Polyethylene.....	199
Polyacetal Adhesives Resistant to Alkali and Solvents.....	202
Copolyester from Adipic plus Terephthalic Acids and Ethylene Glycol plus 1,6-Hexanediol.....	203
Fusible Interlining Containing Styrene-Acrylonitrile-Alkyl Acrylate Terpolymers as Adhesive.....	204
Method of Bonding Polyester-Polyurethane Foam to Textiles with Polyethylene Film.....	206
Laminating Techniques Which Can Be Used with a Variety of Adhesives.....	208
Compacted Composite Fabrics.....	208
Stitch-Bonded Backing Laminated to Facing.....	209
Apparatus for Bonding Fabric.....	212
BONDING PLASTICS	213
Bonding Polyethylene to Itself.....	213
ABA Block Polymer-Zinc Salt of Rosin-Microcrystalline Wax.....	213
ABA Block Polymer-Isoprene/Piperylene Copolymer-Zinc Salt of Rosin-Wax.....	216
Two EVA Copolymers-Atactic Polypropylene-Two Tackifiers.....	218
Addition of Inorganic Filler to EVA-Wax-Tackifier Composition to Improve Adhesiveness at High Temperature.....	219
Plastic Bottles with Plastic Labels.....	221
Polyethylene-Polybutylene-Polyterpene Resin Rod Adhesive for Direct Through-Feed Dispensing.....	222
Plastic-Plastic Bonding.....	225
Plasticized Cellulose Caprate Optical Cement.....	225
Polymeric Fatty Acid Polyamide-Aromatic Compound.....	227
Asphalt-EVA Blend for Polyolefin Laminates.....	229
Polymeric Linear Terephthalate Ester Film.....	230
Bonding Plastic to Other Substrates.....	232
Plastic-Glass.....	232
Plastic-Lined Burlap Bag.....	233

Plastic-Cellulose Material	234
Plastic-Wood	235
Adhesive for Blister Packs	236
Polyolefin-Metal	238
Polypropylene-Lead	240
Polyethylene-Lead for Cable Insulation	241
Polyethylene-Lead for Encapsulation and Termination of Electrical Conductors	244
BONDING METALS	247
Bonding Seams in Container Bodies with Polyester Adhesives	247
Use of Terephthalate Copolyester Adhesive	247
Addition of Polyoxyalkylene Glycol	250
Addition of Amorphous Phenoxy Resin	253
Dimer Acid Modified Polyester Adhesives	256
Dimer Acid Modified Polyester-Polystyrene	256
Dimer Acid Modified Polyester-Aliphatic Hydrocarbon-Polystyrene	258
Polyesteramide Adhesives	261
Polyesteramide Block Copolymer Resistant to Flow at 150°C	261
Use of Methoxymethylmelamine to Improve Adhesion of Filled Copolyesteramides to Metal Substrates	264
Block Polyesteramide-Polystyrene Blend	267
Hot Melts Containing Olefinic Components	269
Terpolymer of Ethylene-Acrylic Acid-tert-Butyl Acrylate	269
Use of Acrylic Acid Grafted Polyolefins to Replace Part of the Olefinic Components	271
Polyolefin- or Polyamide-Oxime Adhesives for Metal or Glass	275
Polyamide Adhesives	276
Polyamide from Polymerization of Bis(4-Aminocyclohexyl)Methane and Polycarboxylic Acid	276
Attaching Metallic End Closures to Container Bodies	278
Use of Other Adhesives for Metals	281
Use of Inorganic Mineral Powder as Setting Promoter	281
Thin Metal Laminates Useful as Household Foils	283
Polyester-Urethane Sealant	285
Radiation Grafting of Butadiene to EVA	287
Rod Adhesives for Direct Through-Feed Dispensing	289
Polyepoxide Resin in Thermoplastic Carrier	289
Polyepoxide, Polyamide and Phenol in Thermoplastic Carrier	291
Bonding of Metals to Other Substrates	293
Metal to Glass	293
Windshield Installation	295
Metal to Rubber Vulcanizate	297
PRESSURE SENSITIVE HOT MELT COMPOSITIONS	301
Floor and Tile Adhesives	301
Rubbery Block Copolymer-Extending Oil-Resin-Atactic Polypropylene	301
EVA-Rubbery Block Copolymer-Resin	304
Atactic Polypropylene-Rubbery Block Copolymer-Resin	305
Rosin-Rubbery Block Copolymer-Polyterpene Resin	306
Rubber-Metal Bonding in Automobiles	307
Six-Component Blend	307
Four-Component Blend	310

Compositions Based on Block Copolymers.	311
A-B-A Block Copolymer-Liquid and Solid Tackifiers	311
Improving Stability of Block Copolymer.	313
Partially Hydrogenated Block Polymer.	315
Use of Naphthenic Plasticizer Oil with A-B-A Block Copolymer Composition	317
Addition of Copolymers of α -Methylstyrene and Styrene to Impart Tack	320
Compositions Based on Styrene-Isobutylene Copolymers.	322
Styrene-Isobutylene Copolymer plus Secondary Ethylene Polymer	322
Styrene-Isobutylene Copolymer-Wax-Primary Resin.	324
Acrylic Based Copolymers.	328
Addition of Photoinitiators into Backbone of Acrylic Based Copolymer	328
Acrylic Based Copolymer Containing Tertiary Amine Monomer plus Organic Metallic Salt.	331
Blends of Acrylate Copolymers of Different T_g	334
Other Pressure Sensitive Compositions	338
High Acid Number Polyamide or Polyesteramide Tack Retainers.	338
Adhesive Containing Tacky Elastomeric Copolymer Microspheres	339
Subjecting Hot-Melt Compositions to Ionizing Radiation	341
Adhesive Based on Solid Polybutadiene	343
EVA ADHESIVES WITH A WIDE RANGE OF APPLICATIONS.	347
EVA-Containing Adhesives.	347
Improving Softening Temperature of EVA-Additive Compositions.	347
Prevention of Crust Formation.	349
EVA-Chlorinated Polyethylene-Unsaturated Acid-Organic Peroxide.	350
EVA-Reactive Urethane Prepolymer-Tackifier	352
Compositions Containing Irradiated Concentrate of Wax and EVA or EEA Copolymers.	354
EVA-Wax-Rosin Polyester.	356
EVA-Polyamide Composition	358
Resins from Petroleum By-Products	359
Hydrogenated, Polymerized Petroleum Fraction.	359
C ₄ -C ₅ Fraction Copolymerized with Vinyl Aromatic Hydrocarbons Containing Isopropenyltoluene.	360
Low Boiling C ₄ -C ₅ Fraction in Combination with Unsaturated Aromatic Hydrocarbons	364
Other Resins for Thermoplastic Polymers.	368
Synthetic Hydrocarbon Resin Tackifier	368
Ethylene Copolymer-Thermoplastic Resin	370
Limonene-Phenol Condensation Product.	373
Zinc Resinates of Disproportionated Rosin.	374
EVA-Phenolic Modified Terpene Resin.	375
MULTIPURPOSE ADHESIVES	378
Elastomeric Polymer Compositions.	378
Polymerized Urethane Elastomeric Compound.	378
Polymerized Elastomeric Butyl Rubber Compound	380
Polymerized Elastomeric Polysulfide Compound	381
Adhesives Containing Coal Tar Pitch.	382
Coal Tar Pitch-Ethylene/Acrylic Acid Copolymer.	382

Coal Tar Pitch-EVA and EAA Cross Linked with Dicumyl Peroxide.	384
Segmented Copolyester Adhesives.	385
Preparation of Segmented Copolyester Adhesives.	385
Use on a Variety of Substrates	389
Use in Manufacture of Reinforced Flexible Hose	391
Cellulose or Fiberglass Reinforced Polyester Substrates	392
Bonding Ethylene Copolymer to Primed Metal.	394
Stabilization by CaO and Carboxylic Compound	397
Stabilization by Addition of CaO, Polycarbodiimide and Additional Compounds.	400
Polyester Adhesives.	403
Noncrystallizing Ethylene Glycol-Neopentyl Glycol-Terephthalate- Sebacate Copolyester	403
Polyester from 1,4-Butanediol and trans-1,4-Cyclohexanedicarboxylic Acid	405
Mixtures of Dicarboxylic Acid Modified Phthalic Acid Polyesters.	407
Adhesives Containing Polyamides.	409
Addition of PVA to Nonadhesive Polymer	409
Polyamide-Glycerol Ester of Fumaric Modified Rosin-Wax.	410
Ethylenediamine and Mixture of Dimerized Fatty Acids and Hepta- decanedicarboxylic Acid.	412
Polyamide-Polyepoxy Rod for Direct Through-Feed Dispensing.	413
Copolymers of Esters of Unsaturated Acids	416
Copolymers of Acrylonitrile, Acrylamide, 2-Ethylhexyl Acrylate and Methyl Methacrylate Containing Formaldehyde	416
Reaction Product with Polyepoxide Compounds	420
Adhesives Containing Olefins	423
Terpolymer of Ethylene-Acrylamide-Acrylic Acid	423
Olefin-Acrylic Ester Copolymer	425
Asphalt-Reject Polypropylene	426
Atactic Polypropylene-Aliphatic Petroleum Hydrocarbon Resin Tackifier	428
Polyester-Polystyrene Blends.	429
Polytetramethylene Terephthalate-Polystyrene.	429
Poly(1,4-Cyclohexylene Dimethylene Terephthalate)-Polystyrene	432
Block Polymers.	433
Preventing Viscosity Increase in Heat Aging	433
Polyalkene Tackifier Modifier	435
Use of Liquid Polyalkadiene as Extender Plasticizer.	436
Block Copolymer-Tackifying Resin-Extender Oil	438
Other Polymeric Adhesives	439
Cyclic Ester Polymer-Vinyl Alkyl Ethers Composition	439
PVA-Plasticizer-Hydrogenated Pine Gum	441
Styrene-Isobutylene- β -Pinene Terpolymer	443
Styrene-Acrylic Ester Graft Copolymers.	446
Resinous Graft Polymer of α -Alkoxy Styrene-Acrylonitrile-Synthetic Rubber	448
Polyvinyl Methyl Ether plus Rosin Modifier	449
In Situ Formation of Solid Elastomeric Polymer.	450
ADDITIONAL HOT MELT PROCESSES.	452
Packageable Forms of Hot Melts.	452
Hot Melt Adhesive Sticks for Hot Melt Applicators.	452

Forming Hot Melt Adhesives into Readily Packageable Forms	454
Dispensing Hot Melt Adhesives.	457
Hot Melt Dispenser Body	457
Gravity Fed Glue Dispensing Apparatus	457
Apparatus for Feeding Glue to a Hot Melt Dispensing Appliance	459
Transfer Method of Applying Hot Melt Glue.	462
Electrostatic Deposition of Adhesive onto an Apertured Substrate.	464
Hot Melt Thermoplastic Adhesive Foam Systems.	467
Pressurized Liquid Adhesive-Inert Gas Mixture.	467
Molten Mixtures of Solid Adhesive and Powdered Blowing Agent.	469
Special Uses for Hot Melts.	471
Component of Gems Set in Fusion Adhesive Foil.	471
Molten Sulfur Adhesive for Wood and Leather.	473
Reaction Product of Methylolurea with C ₁₂ to C ₂₀ Fatty Acid for Matrix Fixturing.	474
Inhibiting Shrinkage of a Vinyl Substrate by Using a Thermoplastic Copolyester.	476
Polyester Resin Impregnated Paper Coated with EVA.	480
Attachment System for Decorative Trim Strips.	481
Decorative Laminates.	483
COMPANY INDEX.	486
INVENTOR INDEX.	488
U.S. PATENT NUMBER INDEX	492