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[Table of Contents 2](#)

[List of Tables & Charts 3](#)

[Study Overview 4](#)

[Sample Text, Table & Chart 5](#)

[Sample Profile, Table & Forecast 6](#)

[Order Form 7](#)

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World Thermoplastic Elastomers

Industry Study with Forecasts for **2011 & 2016**

Study #2284 | December 2007 | \$5500 | 328 pages



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Table of Contents

EXECUTIVE SUMMARY

MARKET ENVIRONMENT

General	4
Global Macroeconomic Environment	6
Recent Economic Performance.....	6
World Economic Outlook	8
Global Fixed Investment Trends.....	11
World Demographic Outlook.....	14
World Population Outlook.....	15
World Urban Population Outlook.....	16
World Motor Vehicle Overview	18
World Motor Vehicle Production/Assembly	19
World Motor Vehicles in Use	21
Per capita TPE Demand/per capita	
GDP Relationship	23

DEMAND BY MARKET

General	26
Motor Vehicles.....	29
Industrial Products.....	34
Footwear	37
Asphalt & Bitumen Modification	40
Adhesives, Sealants & Coatings	41
Consumer & Sporting Goods.....	43
Wire & Cable Jacketing	47
Medical Products & Equipment	49
Other Markets.....	52

SUPPLY & DEMAND BY TYPE

General	54
Styrenic Block Copolymers	57
Production by Region	60
Suppliers & Capacity	61
Demand by Region	67
Demand by Market	69
Thermoplastic Polyolefins	72
Production by Region	75
Suppliers & Capacity	77
Demand by Region	79
Demand by Market	81
Thermoplastic Polyurethanes.....	85
Production by Region	87
Suppliers & Capacity	88
Demand by Region	91
Demand by Market	93
Thermoplastic Vulcanizates.....	95
Production by Region	97
Suppliers & Capacity	98
Demand by Region	100
Demand by Market	102

Copolyester Elastomers	104
Production by Region	107
Suppliers & Capacity	108
Demand by Region	112
Demand by Market	113
Other Thermoplastic Elastomers.....	117
Production by Region	119
Suppliers	120
Demand by Region	122
Demand by Market	123

SUPPLY & DEMAND BY REGION & COUNTRY

General	126
North America	128
Regional TPE Market Share by Company .	131
United States.....	132
Canada.....	136
Mexico	139
Western Europe.....	143
Regional TPE Market Share by Company .	147
Belgium	147
France.....	149
Germany.....	153
Italy	157
Spain	160
United Kingdom	163
Other Western Europe	166
Asia/Pacific.....	169
Regional TPE Market Share by Company .	175
China.....	176
India	180
Japan	184
South Korea	188
Taiwan	192
Other Asia/Pacific	196
Other Regions.....	199
Latin America.....	203
Eastern Europe	207
Africa/Mideast.....	210

INDUSTRY STRUCTURE

General	215
Market Share	217
TPE Compounders.....	220
Technology & Manufacturing.....	224
Technology	224
Manufacturing	226
Competitive Strategies.....	227
Acquisitions, Divestitures &	
Industry Restructuring.....	228
Joint Ventures & Cooperative Agreements .	231

Marketing & Distribution	238
Marketing	239
Distribution	240

COMPANY PROFILES

Arkema SA	243
Asahi Kasei	245
Basell AF SCA	247
BASF AG	250
Bayer AG	252
Bridgestone Corporation.....	256
Celanese Corporation	258
Chi Mei Corporation.....	260
China Petroleum & Chemical	261
Dexco Polymers.....	262
Dow Chemical.....	263
Dow Corning	266
DuPont (EI) de Nemours.....	268
EMS-Chemie Holding.....	271
En Chuan Chemical Industries	272
Eni SpA	273
Exxon Mobil	275
GLS Corporation	278
Huntsman Corporation	281
JSR Corporation	282
Korea Kumho Petrochemical.....	284
KRAIBURG Holding	285
Kraton Polymers.....	286
Kuraray Company	289
Lee Chang Yung Chemical Industry.....	291
LG Chem	292
Lubrizol Corporation	293
Merquinsa	295
Mitsubishi Chemical	296
Mitsui Chemicals.....	298
OAO Gazprom	300
Petroflex Industria e Comercio.....	301
PolyOne Corporation	302
Repsol YPF	304
Rockwood Holdings	306
Royal DSM NV	308
Saint-Gobain	310
Schulman (A.) Incorporated.....	311
SoFter SpA.....	315
Solvay SA	316
Spartech Corporation	317
Sumitomo Chemical.....	320
Teknor Apex	321
Total SA.....	323
Toyobo Company.....	324
TSRC Corporation	325
Washington Penn Plastic	326
ZEON Corporation	327

List of Tables/Charts

EXECUTIVE SUMMARY

1 Summary Table 3

MARKET ENVIRONMENT

1 World Gross Domestic Product
 by Region 11
 2 World Gross Fixed Investment
 by Region 14
 3 World Population by Region 16
 4 World Urban Population by Region 18
 5 World Motor Vehicle Production/
 Assembly by Region 21
 6 World Motor Vehicles in Use by Region. 23
 Cht TPE Demand per capita/GDP
 per capita Relationship, 2006..... 25

DEMAND BY MARKET

1 World Thermoplastic Elastomer
 Demand by Market 28
 Cht World TPE Demand by Market, 2006 29
 2 World Motor Vehicle Market for TPEs 34
 3 World Industrial Product
 Market for TPEs 37
 4 World Footwear Market for TPEs 39
 5 World Asphalt & Bitumen Modification
 Market for TPEs 41
 6 World Adhesive, Sealant & Coating
 Markets for TPEs 43
 7 World Consumer & Sporting Goods
 Markets for TPEs 47
 8 World Wire & Cable Jacketing
 Market for TPEs 49
 9 World Medical Product & Equipment
 Market for TPEs 51
 10 World Other Markets for TPEs 53

SUPPLY & DEMAND BY TYPE

1 World TPE Demand by Type..... 56
 2 World Styrenic Block Copolymer
 Demand 59
 3 Styrenic Block Copolymer
 Production by Region 61
 4 Styrenic Block Copolymers -- World
 Production Capacity by Company,
 Year-End 2006 64
 5 World Styrenic Block Copolymer
 Demand by Region..... 69

6 World Styrenic Block Copolymer
 Demand by Market 72
 7 World Thermoplastic Polyolefin
 Elastomer Demand 75
 8 World Thermoplastic Polyolefin Elastomer
 Production by Region 76
 9 Thermoplastic Polyolefin Elastomers --
 World Production Capacity
 by Company, Year-End 2006 79
 10 World Thermoplastic Polyolefin Elastomer
 Demand by Region..... 81
 11 World Thermoplastic Polyolefin Elastomer
 Demand by Market 85
 12 World Thermoplastic Polyurethane
 Demand 87
 13 World Thermoplastic Polyurethane
 Production by Region 88
 14 Thermoplastic Polyurethanes -- World
 Production Capacity
 by Company, Year-End 2006 91
 15 World Thermoplastic Polyurethane
 Demand by Region..... 92
 16 World Thermoplastic Polyurethane
 Demand by Market 95
 17 World Thermoplastic Vulcanizate
 Demand 97
 18 World Thermoplastic Vulcanizate
 Production by Region 98
 19 Thermoplastic Vulcanizates --
 World Production Capacity
 by Company, Year-End 2006 100
 20 World Thermoplastic Vulcanizate
 Demand by Region..... 101
 21 World Thermoplastic Vulcanizate
 Demand by Market 104
 22 World Copolyester Elastomer Demand . 107
 23 World Copolyester Elastomer
 Production by Region 108
 24 Copolyester Elastomers --
 World Production Capacity
 by Company, Year-End 2006 112
 25 World Copolyester Elastomer
 Demand by Region..... 113
 26 World Copolyester Elastomer
 Demand by Market 117
 27 World Demand for Other TPEs..... 119
 28 World Production of Other
 TPEs by Region 120

29 World Demand for Other
 TPEs by Region 123
 30 World Demand for Other TPEs
 by Market & Type..... 125

SUPPLY & DEMAND BY REGION & COUNTRY

1 World TPE Supply & Demand
 by Region 128
 2 North America -- TPE
 Supply & Demand 131
 3 United States -- TPE
 Supply & Demand 136
 4 Canada -- TPE Demand..... 139
 5 Mexico -- TPE Supply & Demand 142
 6 Western Europe -- TPE
 Supply & Demand 146
 7 Belgium -- TPE Supply & Demand 149
 8 France -- TPE Supply & Demand 153
 9 Germany -- TPE Supply & Demand..... 157
 10 Italy -- TPE Supply & Demand 160
 11 Spain -- TPE Supply & Demand..... 163
 12 United Kingdom -- TPE
 Supply & Demand 166
 13 Other Western Europe -- TPE
 Supply & Demand 169
 14 Asia/Pacific -- TPE Supply & Demand . 175
 15 China -- TPE Supply & Demand..... 180
 16 India -- TPE Supply & Demand 183
 17 Japan -- TPE Supply & Demand 188
 18 South Korea -- TPE Supply & Demand . 191
 19 Taiwan -- TPE Supply & Demand..... 195
 20 Other Asia/Pacific -- TPE
 Supply & Demand 199
 21 Other Regions -- TPE
 Supply & Demand 203
 22 Latin America -- TPE
 Supply & Demand 206
 23 Eastern Europe -- TPE
 Supply & Demand 210
 24 Africa/Mideast -- TPE
 Supply & Demand 214

INDUSTRY STRUCTURE

Cht World Market Share for TPEs
 by Company, 2006 218
 1 World TPE Sales by Company, 2006 219
 2 Selected Acquisitions & Divestitures.. 230
 3 Selected Cooperative Agreements 233

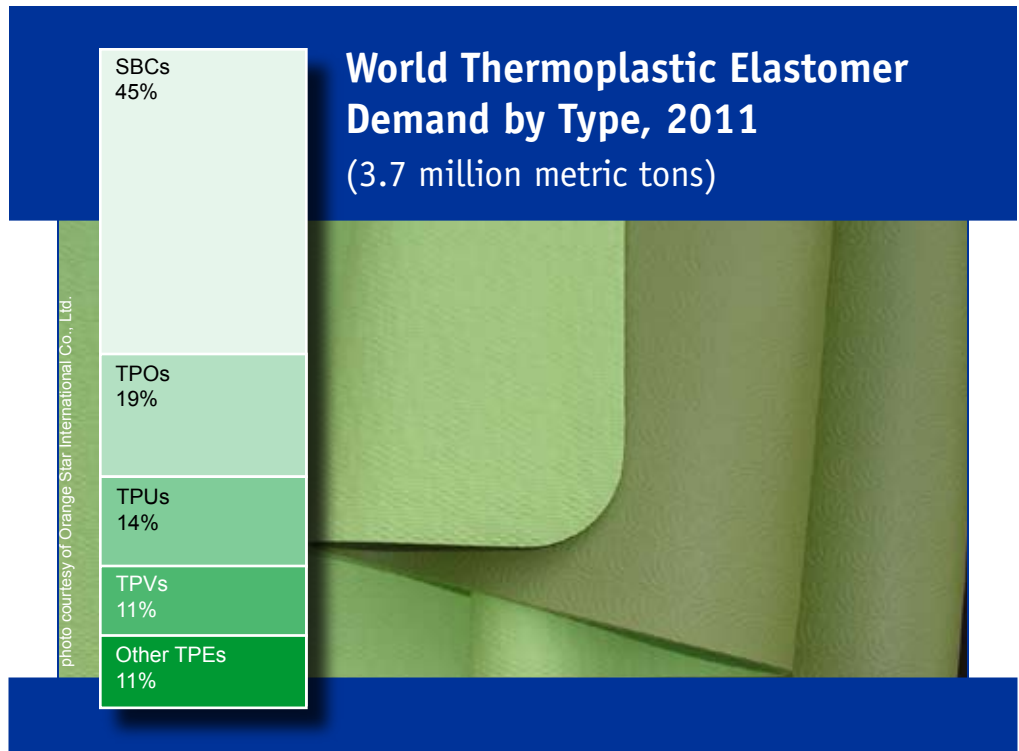
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China will expand its share of the world TPE market through 2011, although the US will remain the world's largest manufacturer of some products such as olefinic based TPEs.

World demand to rise 6.3% annually through 2011

Global demand for thermoplastic elastomers (TPEs) is forecast to increase 6.3 percent per year through 2011 to 3.7 million metric tons. Value gains will expand an even stronger 7.5 percent per year to \$14.9 billion over the same period, due to the increasing number of applications that require costlier types of TPEs and somewhat higher energy prices that will raise TPE production costs. China will expand its share of the world market from under 30 percent in 2006 to more than 33 percent in 2011, although the US will remain the world's largest manufacturer of some products such as olefinic based TPEs. TPEs will continue to find the majority of their use as replacements for natural and synthetic rubber, as well as for rigid thermoplastics and metals. In most developed countries, many of the easy substitutions for thermoset rubber have already been made, and demand growth for TPEs will slow down.

Through 2011, China's TPE market (the world's largest market in metric tons) will expand and diversify rapidly based on the country's significant position in the production of many of the key products manufactured with TPEs (e.g., footwear, motor vehicles, housewares, appliances, sporting goods, hand and power tools, and industrial machinery). Currently, a large portion of TPE demand in China is devoted to the country's massive footwear industry.



Motor vehicles to remain largest TPE market

Motor vehicles will remain the largest market for TPEs at the global level, with demand exceeding one million metric tons in 2011. The sustained solid gains forecast for TPEs in this market will be aided by the development of new products for exterior application (e.g., dynamic body seals), for better scratch resistance and for under-the-hood automotive conditions that require high heat- and oil-resistance. Moreover, continuing displacement of higher cost ethylene-propylene diene monomer (EPDM) and polyvinyl chloride (PVC) in static sealing and interior (e.g., instrument panels and door skins) applications

will further aid gains, especially in developing markets.

Medical, consumer/sporting goods to lead gains

The smaller medical products and consumer and sporting goods sectors will remain the fastest growing markets for TPEs through 2011. Gains will derive mainly from the development of newer products with better ergonomic or "soft touch" features, improved UV-resistance and temperature sensitivity, greater transparency and translucency and other beneficial features. Moreover, overall global demand for medical and consumer and sporting good products is forecast to register healthy gains through 2011.

Sample Text, Table & Chart

SUPPLY & DEMAND BY TYPE

TPU Demand by Market

Thermoplastic polyurethane elastomers are used primarily for vehicle markets, which accounted for over 35 percent of demand in 2006, along with a wide range of smaller volume markets, including consumer and sporting goods, industrial products, footwear, and cable. Fastest gains are forecast for consumer and sporting goods as the excellent durability, resilience and water resistance of TPUs offer favorable gains in a wide range of equipment, including racquets, in-line skates and goggles, among numerous others.

Demand for TPUs in motor vehicles is forecast to expand at a pace twice as fast as motor vehicle production. Though TPUs will experience their favorable properties in broad use in the motor vehicle market, they are also used in injection-molded into a wide range of excellent abrasion resistance, good paintability and colorability. Applications are concentrated in exterior components based on performance characteristics such as resistance to environmental conditions (e.g., oxygen and sunlight), high abrasion resistance and flexibility. Exterior applications for TPUs include bumpers, grilles, fascia, body panels, side trim, body side claddings, fender extensions, housings and window encapsulation systems. TPUs face increasing competition from other TPEs in exterior applications, particularly TPOs in bumpers and body side claddings.

Engine, mechanical and interior applications account for the remaining portion of thermoplastic polyurethanes in the motor vehicle market. Traditionally, thermoplastic polyurethane elastomers have found limited use in engine and mechanical applications because of their relatively low heat resistance. Over the past decade, however, TPUs with

TABLE V-16

INDIA -- THERMOPLASTIC ELASTOMER SUPPLY & DEMAND (000 metric tons)

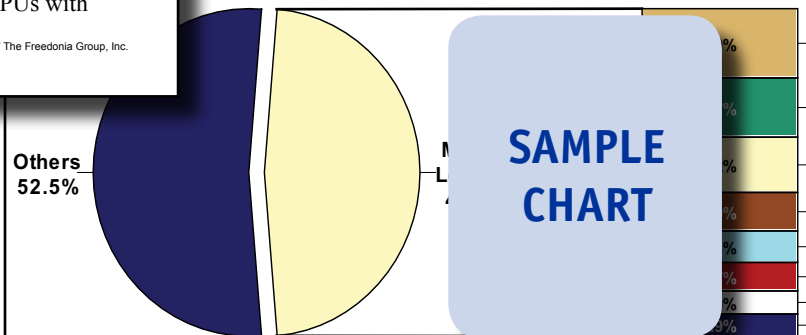
Item	1996	2001	2006	2011	2016
Population (million persons)					77
\$ GDP/capita					0
Gross Domestic Product (bil 2005\$)					0
\$ per mil \$ GDP					3
kg per capita					4
kg per mil \$ GDP					6
TPE Demand (mil \$)					0
\$/kg					4
Thermoplastic Elastomer Demand					1
Styrenic Block Copolymers (SBCs)					0
Thermoplastic Polyolefins (TPOs)					0
Thermoplastic Polyurethanes (TPUs)					0
Thermoplastic Vulcanizates (TPVs)					0
Copolyester Elastomers (COPEs)					5
Other TPEs					6
net exports					1
Thermoplastic Elastomer Production					0

SAMPLE
TABLE

SAMPLE
TEXT

CHART VI-1

WORLD MARKET SHARE FOR THERMOPLASTIC ELASTOMERS BY COMPANY, 2006 (\$10.4 billion)

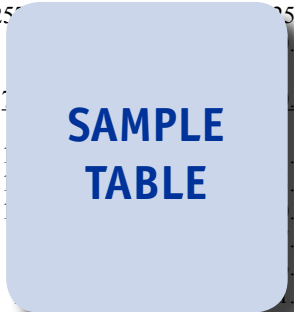


SAMPLE
CHART

Sample Profile, Table & Forecast

TABLE III-7
WORLD CONSUMER & SPORTING GOODS MARKETS
FOR THERMOPLASTIC ELASTOMERS
(000 metric tons)

Item	1996	2001	2006	2011	2016
Personal Consump Expend (bil 2005\$)	25.0	25.0	25.0	25.0	25.0
kg/mil \$ PCE	1.1	1.1	1.1	1.1	1.1
Consumer & Sporting Goods Mkts	9.9	9.9	9.9	9.9	9.9
By Type:					
Thermoplastic Polyurethanes	0.0	0.0	0.0	0.0	0.0
Styrenic Block Copolymers	0.0	0.0	0.0	0.0	0.0
Thermoplastic Polyolefins	0.0	0.0	0.0	0.0	0.0
Copolyester Elastomers	2.2	2.2	2.2	2.2	2.2
Thermoplastic Vulcanizates	0.0	0.0	0.0	0.0	0.0
Other TPEs	7.7	7.7	7.7	7.7	7.7
By Application:					
Appliances & Housewares	61.8	100.0	165.0	230.0	320.0
Sporting Goods/Household Goods	14.2	26.3	86.9	158.9	250.9



COMPANY PROFILES

TSRC Corporation

18F, 95, Section 2
 Dun Hua South Road
 Taipei 106 TAIWAN
 886-2-3701-6000
<http://www.tsrc.com.tw>



Revenue
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TSRC is a thermoplastic elastomers, or TPEs. TSRC is partially owned by CEC Group (Taiwan).

The Company's portfolio of TPEs includes TAIPOL styrenic block copolymers (SBCs) and T-BLEND compounds based on SBCs. TSRC sells TPEs and other products from sales offices in Taiwan and China. TPEs are sold by the Company to Taiwan, China, Japan, Southeast Asia, the US and Europe.

Among the features of TAIPOL SBCs are enhanced thermoplasticity, low viscosity and easy blending in such applications as shoe soles, asphalt and plastics modification, and hot-melt adhesives. In addition, blending small amounts of TAIPOL SBCs into polypropylene, polyethylene, polystyrene and other materials substantially increases impact strength and low temperature resistance, enabling the SBCs to be utilized in such items as medical equipment, toys, automotive parts and accessories, exercise equipment, and industrial products. TSRC manufactures TAIPOL SBCs at a plant in Kaohsiung, Taiwan that has an annual TAIPOL SBC capacity of 60,000 metric tons.

“Though appliances and housewares will remain the larger volume segment, stronger gains are forecast for sporting goods and household products, including toys, cameras, personal care items, and lawn and garden equipment, among others. Demand for TPEs in these uses is forecast to expand 12.8 percent per year through 2011 to almost 160,000 metric tons, with demand benefitting from superior performance characteristics over traditional materials such as thermo-set rubber, thermoplastics and metals.”
 --Section III, pg. 45

OTHER STUDIES

Nanocomposites

This study analyzes the US market for polymer nanocomposites. It presents historical demand data (2001, 2006) and forecasts for the years 2011, 2016 and 2025 by resin (e.g., PP, PE, PVC, polyesters, engineered plastics); market (e.g., packaging, consumer, construction, motor vehicles); and nanomaterial (e.g., nanotubes, clay, minerals). The study also considers market environment factors, details industry structure and competitive strategies, evaluates market share and profiles industry participants.

#2303 02/2008..... \$4500

Plastic Sheet

Demand for plastic sheet in the US will reach 7.7 billion pounds in 2011, based on sheet's versatility, aesthetic and material combining advantages. Food packaging will be the fastest growing market and account for nearly half of all demand. Polystyrene, polypropylene and polyester sheet offer the best prospects by resin type. This study analyzes the \$6.7 billion US plastic sheet industry, with forecasts for 2011 and 2016 by resin and market. It also evaluates company market share and profiles major players.

#2283 12/2007..... \$4500

Extruded Plastics

US demand for extruded plastics will reach 40 billion pounds in 2011, driven by extrusion's cost efficiency, processing ease and high volume uses. PVC and LDPE will remain the dominant extruded resins while HDPE will grow the fastest. Construction and packaging uses will offer the best market prospects. This study analyzes the \$27 billion (resin content) US extruded plastic industry, with forecasts for 2011 and 2016 by resin and market. It also presents company market share data and profiles leading players.

#2241 09/2007..... \$4500

Metalocene & Other Single-Site Polymers

US metallocene and single-site polymer demand will grow 17.7% annually through 2011. mLLDPE will remain dominant while mHDPE and polypropylene will lead gains. Film and sheet will stay the most common application, but will be outpaced by injection and blow molding uses. This study analyzes the \$2.4 billion US metallocene and single-site polymer industry, with forecasts for 2011 and 2016 by polymer, application and market. It also evaluates company market share and profiles leading competitors.

#2218 07/2007..... \$4400

Fluoropolymers

US fluoropolymers demand will rise 5.7% yearly through 2011. PVDF resins will lead gains among major types based on strength in architectural coatings. Fluoroelastomers will also do well, benefiting from improved motor vehicle and aerospace markets. Electrical and electronic products will be the fastest growing market. This study analyzes the \$1.4 billion US fluoropolymer industry, with forecasts for 2011 and 2016 by product, application and market. It also details market share and profiles major firms.

#2206 06/2007..... \$4400

About The Freedonia Group

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