Market Study: Adhesives

Ceresana
Market Research Since 2002

This brochure provides further information on the study “Adhesives - World (6th edition)”

Executive Summary

Strong and secure for eternity, elastic, heat-resistant, or removable without residue. Adhesives are tailor-maide for a broad range of applications: There are already more than 250,000 different adhesive formulations, and the number is steadily increasing. These mostly invisible helpers not only provide adhesion and bonding, they also offer thermal and sound insulation, protection against moisture, electrical conductivity, pest control and other innovative functions. Ceresana has analyzed the global market for the 6th time: Around 13.5 million tonnes are consumed every year.

Adhesives combine and protect

With a share of around 38.2% of global sales, Asia-Pacific is the largest market, followed by North America and Western Europe. In Europe, the “paper and packaging” segment uses the most adhesives. However, the construction industry is the most important sales market worldwide: Around 27.5% of global consumption is accounted for by wall and floor coverings, the repair and renovation of buildings, components such as cladding and panels and even insulation materials. In the automotive industry, lightweight car bodies and batteries for electromobility are further increasing the demand for adhesives; thermoset composite materials for wind turbine rotor blades are also bonded. However, adhesive consumption is currently growing most strongly in the “shoes, leather and textiles” application area.

Data on adhesive applications & technologies

Biobased adhesives, which are at least partially made from renewable raw materials, are developing dynamically - and not just in special applications such as bottle labels or wallpaper paste. However, conventional petrochemical plastic products still have the largest market share. Vinyl adhesives represent the most important product type with a current annual demand of around 3.95 million tonnes. There is a wide variety of vinyl-based adhesives. Products based on polyvinyl acetate are among the most important ones. Polyvinyl alcohol, manufactured from polyvinyl acetate, is used as an adhesive for porous materials, such as paper, cardboard, wood, cork, and leather. Vinyl products are followed by acrylic-based adhesives, PUR, elastomers, epoxy and other adhesives. PUR and reactive adhesives are currently experiencing the strongest growth. Water-based adhesives account for around 46% of total consumption.

Current Market Study “Adhesives - World”:

Chapter 1 analyzes the global market, including forecasts up to 2032: Revenues, demand, and production is analyzed for each region. Regional markets are analyzed extensively: Data and influencing factors on the use in the applications construction, paper and packaging, wood processing, transportation, shoes, leather, and textiles, consumer products, and others. Demand is broken down by product type: Vinyl, acrylic, PUR, elastomer, epoxy, and others. The technologies are also covered individually: water-based, hot-melt, solvent-borne, reactive, and other technologies.

Chapter 2 analyzes the market in the 17 most important countries: Demand for, export and import of, as well as revenues generated with adhesives are given. In addition, these countries are also analyzed in detail regarding application and technology. The current edition also breaks down the revenues by application. Market data on demand and production of each country is split for each type of adhesive.

Chapter 3 offers a directory of the 89 most important producers, such as 3M, Bolton, Bostik, Fuller., Henkel, Huntsman, ITW, Nagase, RPM, and Sika.

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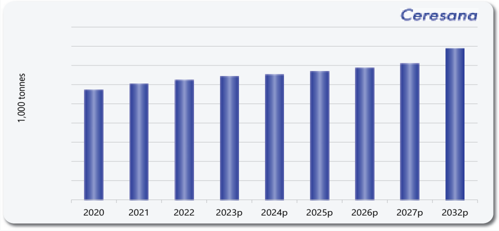
1 Market Data: World and Regions

2.4.1 Brazil - Demand and Revenues

About X tonnes of adhesives were utilized in Brazil in 2022. We expect Brazilian market volume to increase by X% per year to approx. X tonnes by 2032. Revenues generated with adhesives in Brazil amounted to a volume of USD X million in 2022. We expect an increase in the market volume to USD X million by 2032.



Graph: Demand in Brazil from 2020 to 2032

Revenues	2020	2021	2022	2023p	2024p	2025p	2026p	2027p	2032p	2022-2032
million USD	X	X	X	X	X	X	X	X	X	X% p.a.
million EUR	X	X	X	X	X	X	X	X	X	X% p.a.

Table: Revenues generated in Brazil from 2020 to 2032, in million USD and million EUR

in million USD	2020	2021	2022	2023p	2024p	2025p	2026p	2027p	2032p	2022-2032
Paper/Packaging	X	X	X	X	X	X	X	X	X	X% p.a.
Construction Industry	X	X	X	X	X	X	X	X	X	X% p.a.
Wood processing	X	X	X	X	X	X	X	X	X	X% p.a.
Transportation	X	X	X	X	X	X	X	X	X	X% p.a.
Shoes/Leather/Textiles	X	X	X	X	X	X	X	X	X	X% p.a.
Consumer Goods	X	X	X	X	X	X	X	X	X	X% p.a.
Others	X	X	X	X	X	X	X	X	X	X% p.a.
Total	X	X	X	X	X	X	X	X	X	X% p.a.

Table: Revenues generated in Brazil from 2020 to 2032, in million USD – split by application

in 1,000 tonnes	2020	2021	2022	2023p	2024p	2025p	2026p	2027p	2032p	2022-2032
Paper/Packaging	X	X	X	X	X	X	X	X	X	X% p.a.
Construction Industry	X	X	X	X	X	X	X	X	X	X% p.a.
Wood processing	X	X	X	X	X	X	X	X	X	X% p.a.
Transportation	X	X	X	X	X	X	X	X	X	X% p.a.
Shoes/Leather/Textiles	X	X	X	X	X	X	X	X	X	X% p.a.
Consumer Goods	X	X	X	X	X	X	X	X	X	X% p.a.
Others	X	X	X	X	X	X	X	X	X	X% p.a.
Total	X	X	X	X	X	X	X	X	X	X% p.a.

Table1: Demand in Brazil from 2020 to 2032 – split by application

In 2020, there were 131,809 construction companies in Brazil. Major construction companies such as Odebrecht (now OEC) and OAS (now Metha) were sentenced to heavy fines in international criminal proceedings following corruption scandals and subsequently restructured. Construction investment totaled around USD 59 billion in 2020, a decrease of 12.8% compared to 2019. Of this, 26.4 billion was accounted for by building construction, 19.6 billion by civil engineering and 13 billion by specialized construction services. Public contracts accounted for 30 %. In 2022, value added in the Brazilian construction sector grew by 6.9% in real terms, outperforming Brazil's gross domestic product, which only grew by 2.9%. However, growth is expected to be lower in 2023 due to rising interest rates and construction costs.

Social housing is particularly important for residential construction: In 2021 and 2022, more than half of all new builds were subsidized with state loans. The government under President Lula wants to provide around 2 million families with preferential home ownership by 2026 through the "Minha Casa Minha Vida" (MCMV) program. The construction of 30,000 apartments, which had been suspended in the meantime, is to be resumed by the end of 2023. In the state of São Paulo, the “Nossa Casa” program is building homes in public-private partnerships. In the city of São Paulo, the city center is to be redeveloped and 38,000 apartments are to be promoted with the “Pode Entrar” program.

After the end of the COVID-19 pandemic, hotel chains are again investing in new buildings, especially in the northeast of Brazil. On the south coast in Maricá, the luxury residence and hotel complex “Maraey” will be built in partnership with Marriott International for USD 2.1

Market Study: “Adhesives - World (6th edition)”

17 Countries, 89 Producers, 460 Pages, 92 Graphs, 239 Tables, 02/2024

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billion starting in 2023. In the south of São Paulo, the leisure project “Beyond The Club” (BTC) is to be built by 2025 at a cost of USD 1 billion, a complex with an artificial beach, surf pool, sports arenas, luxury apartments and retail outlets. The US chain Hard Rock plans to build eight to ten hotel, commercial and residential complexes by 2028 at a cost of USD 1.3 billion. In commercial construction, demand is growing in particular for logistics centers, warehouses and data centers. Major projects in industrial construction include two pulp mills in the state of Mato Grosso do Sul, which together cost more than USD 6.6 billion and are...

in 1,000 tonnes	2020	2021	2022	2023p	2024p	2025p	2026p	2027p	2032p	2022-2032
Vinyl	X	X	X	X	X	X	X	X	X	X% p.a.
Acrylic	X	X	X	X	X	X	X	X	X	X% p.a.
Polyurethanes	X	X	X	X	X	X	X	X	X	X% p.a.
Elastomers	X	X	X	X	X	X	X	X	X	X% p.a.
Epoxy	X	X	X	X	X	X	X	X	X	X% p.a.
Others	X	X	X	X	X	X	X	X	X	X% p.a.
Total	X	X	X	X	X	X	X	X	X	X% p.a.

Table: Demand in Brazil from 2020 to 2032 – split by product

in 1,000 tonnes	2020	2021	2022	2023p	2024p	2025p	2026p	2027p	2032p	2022-2032
Water-based	X	X	X	X	X	X	X	X	X	X% p.a.
Hot Melts	X	X	X	X	X	X	X	X	X	X% p.a.
Solventborne	X	X	X	X	X	X	X	X	X	X% p.a.
Reactive adhesives	X	X	X	X	X	X	X	X	X	X% p.a.
Others	X	X	X	X	X	X	X	X	X	X% p.a.
Total	X	X	X	X	X	X	X	X	X	X% p.a.

Table: Demand in Brazil from 2020 to 2032 – split by technology

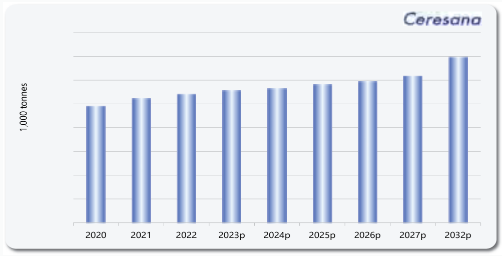
With a volume of approx. X tonnes, the application area “construction” was the largest application area for adhesives in 2022. The sub-market “shoes, leather and textiles” is likely to account for the highest percentage increases in the years to come.

Production and Trade

About X tonnes of adhesives were produced in 2020. We expect this market value to increase by X% p.a. over the next ten years. Production volume will rise to X million tonnes by 2032.

in 1,000 tonnes	2020	2021	2022	2023p	2024p	2025p	2026p	2027p	2032p	2022-2032
Production	X	X	X	X	X	X	X	X	X	X% p.a.
Import	X	X	X	X	X	X	X	X	X	X% p.a.
Export	X	X	X	X	X	X	X	X	X	X% p.a.
Demand	X	X	X	X	X	X	X	X	X	X% p.a.

Table: Production, import, export and demand in Brazil from 2020 to 2032



Graph: Production in Brazil from 2020 to 2032

in 1,000 tonnes	2020	2021	2022	2023p	2024p	2025p	2026p	2027p	2032p	2022-2032
Vinyl	X	X	X	X	X	X	X	X	X	X% p.a.
Acrylic	X	X	X	X	X	X	X	X	X	X% p.a.
Polyurethanes	X	X	X	X	X	X	X	X	X	X% p.a.
Elastomers	X	X	X	X	X	X	X	X	X	X% p.a.
Epoxy	X	X	X	X	X	X	X	X	X	X% p.a.
Others	X	X	X	X	X	X	X	X	X	X% p.a.
Total	X	X	X	X	X	X	X	X	X	X% p.a.

Table: Production in Brazil from 2020 to 2032 – split by product

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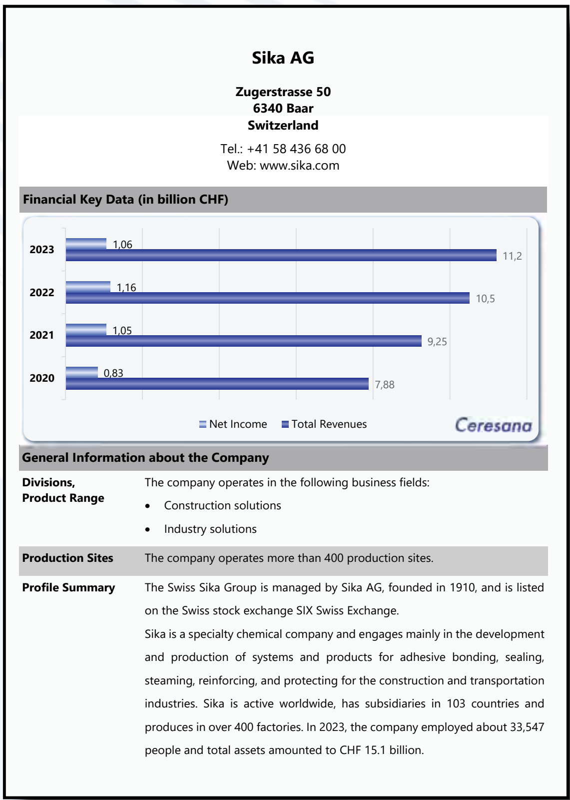
3 Company Profiles*


Sika AG

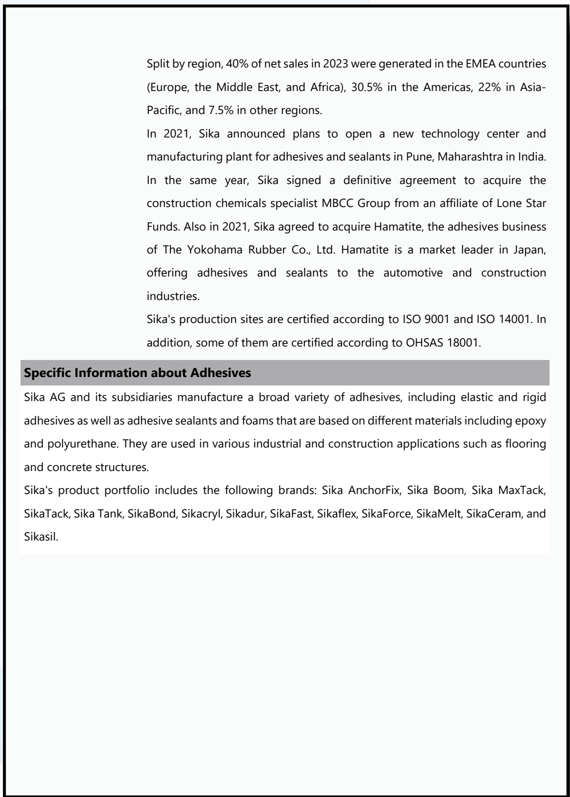
Zugerstrasse 50
6340 Baar
Switzerland

Tel.: +41 58 436 68 00
Web: www.sika.com

Financial Key Data (in billion CHF)

General Information about the Company

Divisions, Product Range	The company operates in the following business fields: • Construction solutions • Industry solutions
Production Sites	The company operates more than 400 production sites.
Profile Summary	The Swiss Sika Group is managed by Sika AG, founded in 1910, and is listed on the Swiss stock exchange SIX Swiss Exchange. Sika is a specialty chemical company and engages mainly in the development and production of systems and products for adhesive bonding, sealing, steaming, reinforcing, and protecting for the construction and transportation industries. Sika is active worldwide, has subsidiaries in 103 countries and produces in over 400 factories. In 2023, the company employed about 33,547 people and total assets amounted to CHF 15.1 billion.


Split by region, 40% of net sales in 2023 were generated in the EMEA countries (Europe, the Middle East, and Africa), 30.5% in the Americas, 22% in Asia-Pacific, and 7.5% in other regions.

In 2021, Sika announced plans to open a new technology center and manufacturing plant for adhesives and sealants in Pune, Maharashtra in India. In the same year, Sika signed a definitive agreement to acquire the construction chemicals specialist MBCC Group from an affiliate of Lone Star Funds. Also in 2021, Sika agreed to acquire Hamatite, the adhesives business of The Yokohama Rubber Co., Ltd. Hamatite is a market leader in Japan, offering adhesives and sealants to the automotive and construction industries.

Sika's production sites are certified according to ISO 9001 and ISO 14001. In addition, some of them are certified according to OHSAS 18001.

Specific Information about Adhesives

Sika AG and its subsidiaries manufacture a broad variety of adhesives, including elastic and rigid adhesives as well as adhesive sealants and foams that are based on different materials including epoxy and polyurethane. They are used in various industrial and construction applications such as flooring and concrete structures.

Sika's product portfolio includes the following brands: Sika AnchorFix, Sika Boom, Sika MaxTack, SikaTack, Sika Tank, SikaBond, Sikacryl, Sikadur, SikaFast, Sikaflex, SikaForce, SikaMelt, SikaCeram, and Sikasil.

*Note: The profiles are assigned to the country in which the company or holding is headquartered. Profiles also include JVs and subsidiaries.

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MADE IN GERMANY

Ceresana
Mainaustr. 34
78464 Konstanz
Germany

+49 7531 94297 0

info@ceresana.com

www.ceresana.com

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- Biobased Insulation Material - World
- Biobased Paints and Coatings - World
- Biobased Solvents - World
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- Bioplastic Packaging - World
- Bioplastic Films - World
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- Chelating Agents - World
- Fillers - Europe
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- Bags, Sacks & Pouches - World
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- Plastic Films - World
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- Adhesives - World
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- Insulation Material - World
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- Paints & Coatings - World
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- Printing Inks - World
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Plastics

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Mobility

- Automotive Coatings - World
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- Automotive Plastics - World
- Hybrid & Electric Cars - Europe

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