

# Global Colourless glass Market Report 2019 - Market Size, Share, Price, Trend and Forecast

https://marketpublishers.com/r/G70DB6F3D66EN.html

Date: January 2019 Pages: 137 Price: US\$ 4,000.00 (Single User License) ID: G70DB6F3D66EN

# Abstracts

The global market size of Colourless glass is \$XX million in 2018 with XX CAGR from 2014 to 2018, and it is expected to reach \$XX million by the end of 2024 with a CAGR of XX% from 2019 to 2024.

Global Colourless glass Market Report 2019 - Market Size, Share, Price, Trend and Forecast is a professional and in-depth study on the current state of the global Colourless glass industry. The key insights of the report:

1. The report provides key statistics on the market status of the Colourless glass manufacturers and is a valuable source of guidance and direction for companies and individuals interested in the industry.

2. The report provides a basic overview of the industry including its definition, applications and manufacturing technology.

3. The report presents the company profile, product specifications, capacity, production value, and 2013-2018 market shares for key vendors.

4. The total market is further divided by company, by country, and by application/type for the competitive landscape analysis.

5. The report estimates 2019-2024 market development trends of Colourless glass industry.

6. Analysis of upstream raw materials, downstream demand, and current market dynamics is also carried out

7. The report makes some important proposals for a new project of Colourless glass Industry before evaluating its feasibility.

There are 4 key segments covered in this report: competitor segment, product type segment, end use/application segment and geography segment.



For competitor segment, the report includes global key players of Colourless glass as well as some small players.

The information for each competitor includes:

**Company Profile** 

Main Business Information

SWOT Analysis

Sales, Revenue, Price and Gross Margin

Market Share

For product type segment, this report listed main product type of Colourless glass market

Product Type I

Product Type II

Product Type III

For end use/application segment, this report focuses on the status and outlook for key applications. End users sre also listed.

Application I

Application II

Application III

For geography segment, regional supply, application-wise and type-wise demand, major players, price is presented from 2013 to 2023. This report covers following regions:



North America

South America

Asia & Pacific

Europe

MEA (Middle East and Africa)

The key countries in each region are taken into consideration as well, such as United States, China, Japan, India, Korea, ASEAN, Germany, France, UK, Italy, Spain, CIS, and Brazil etc.

# **REASONS TO PURCHASE THIS REPORT:**

Analyzing the outlook of the market with the recent trends and SWOT analysis

Market dynamics scenario, along with growth opportunities of the market in the years to come

Market segmentation analysis including qualitative and quantitative research incorporating the impact of economic and non-economic aspects

Regional and country level analysis integrating the demand and supply forces that are influencing the growth of the market.

Market value (USD Million) and volume (Units Million) data for each segment and sub-segment

Competitive landscape involving the market share of major players, along with the new projects and strategies adopted by players in the past five years

Comprehensive company profiles covering the product offerings, key financial information, recent developments, SWOT analysis, and strategies employed by the major market players

1-year analyst support, along with the data support in excel format.



We also can offer customized report to fulfill special requirements of our clients. Regional and Countries report can be provided as well.



# Contents

### **CHAPTER 1 EXECUTIVE SUMMARY**

#### **CHAPTER 2 ABBREVIATION AND ACRONYMS**

# **CHAPTER 3 PREFACE**

- 3.1 Research Scope
- 3.2 Research Methodology
  - 3.2.1 Primary Sources
  - 3.2.2 Secondary Sources
  - 3.2.3 Assumptions

#### CHAPTER 4 MARKET LANDSCAPE

- 4.1 Market Overview
- 4.2 Classification/Types
- 4.3 Application/End Users

# **CHAPTER 5 MARKET TREND ANALYSIS**

- 5.1 Introduction
- 5.2 Drivers
- 5.3 Restraints
- 5.4 Opportunities
- 5.5 Threats

# **CHAPTER 6 INDUSTRY CHAIN ANALYSIS**

- 6.1 Upstream/Suppliers Analysis
- 6.2 Colourless glass Analysis
  - 6.2.1 Technology Analysis
  - 6.2.2 Cost Analysis
  - 6.2.3 Market Channel Analysis
- 6.3 Downstream Buyers/End Users

# **CHAPTER 7 LATEST MARKET DYNAMICS**

Global Colourless glass Market Report 2019 - Market Size, Share, Price, Trend and Forecast



- 7.1 Latest News
- 7.2 Merger and Acquisition
- 7.3 Planned/Future Project
- 7.4 Policy Dynamics

# **CHAPTER 8 TRADING ANALYSIS**

- 8.1 Export of 3D-Enabled Smartphones by Region
- 8.2 Import of 3D-Enabled Smartphones by Region
- 8.3 Balance of Trade

# CHAPTER 9 HISTORICAL AND CURRENT COLOURLESS GLASS IN NORTH AMERICA (2013-2018)

- 9.1 3D-Enabled Smartphones Supply
- 9.2 3D-Enabled Smartphones Demand by End Use
- 9.3 Competition by Players/Suppliers
- 9.4 Type Segmentation and Price
- 9.5 Key Countries Analysis
  - 9.5.1 US
  - 9.5.2 Canada
  - 9.5.3 Mexico

# CHAPTER 10 HISTORICAL AND CURRENT COLOURLESS GLASS IN SOUTH AMERICA (2013-2018)

- 10.1 3D-Enabled Smartphones Supply
- 10.2 3D-Enabled Smartphones Demand by End Use
- 10.3 Competition by Players/Suppliers
- 10.4 Type Segmentation and Price
- 10.5 Key Countries Analysis
  - 10.5.1 Brazil
  - 10.5.2 Argentina
  - 10.5.3 Chile
  - 10.5.4 Peru

# CHAPTER 11 HISTORICAL AND CURRENT COLOURLESS GLASS IN ASIA & PACIFIC (2013-2018)



- 11.1 3D-Enabled Smartphones Supply
- 11.2 3D-Enabled Smartphones Demand by End Use
- 11.3 Competition by Players/Suppliers
- 11.4 Type Segmentation and Price
- 11.5 Key Countries Analysis
  - 11.5.1 China
  - 11.5.2 India
  - 11.5.3 Japan
  - 11.5.4 South Korea
  - 11.5.5 ASEAN
  - 11.5.6 Australia

# CHAPTER 12 HISTORICAL AND CURRENT COLOURLESS GLASS IN EUROPE (2013-2018)

- 12.1 3D-Enabled Smartphones Supply
- 12.2 3D-Enabled Smartphones Demand by End Use
- 12.3 Competition by Players/Suppliers
- 12.4 Type Segmentation and Price
- 12.5 Key Countries Analysis
  - 12.5.1 Germany
  - 12.5.2 France
  - 12.5.3 UK
  - 12.5.4 Italy
  - 12.5.5 Spain
  - 12.5.6 Belgium
  - 12.5.7 Netherlands
  - 12.5.8 Austria
  - 12.5.9 Poland
  - 12.5.10 Russia

# CHAPTER 13 HISTORICAL AND CURRENT COLOURLESS GLASS IN MEA (2013-2018)

- 13.1 3D-Enabled Smartphones Supply
- 13.2 3D-Enabled Smartphones Demand by End Use
- 13.3 Competition by Players/Suppliers
- 13.4 Type Segmentation and Price
- 13.5 Key Countries Analysis



13.5.1 Egypt
13.5.2 Iran
13.5.3 Israel
13.5.4 South Africa
13.5.5 GCC
13.5.6 Turkey

# CHAPTER 14 SUMMARY FOR GLOBAL COLOURLESS GLASS (2013-2018)

- 14.1 3D-Enabled Smartphones Supply
- 14.2 3D-Enabled Smartphones Demand by End Use
- 14.3 Competition by Players/Suppliers
- 14.4 Type Segmentation and Price

# CHAPTER 15 GLOBAL COLOURLESS GLASS FORECAST (2019-2023)

- 15.1 3D-Enabled Smartphones Supply Forecast
- 15.2 3D-Enabled Smartphones Demand Forecast
- 15.3 Competition by Players/Suppliers
- 15.4 Type Segmentation and Price Forecast

# CHAPTER 16 ANALYSIS OF GLOBAL KEY VENDORS

- 16.1 Company A
  - 16.1.1 Company Profile
  - 16.1.2 Main Business and Colourless glass Information
  - 16.1.3 SWOT Analysis of Company A
- 16.1.4 Company A Colourless glass Sales, Revenue, Price and Gross Margin (2014-2019)

# 16.2 Company B

- 16.2.1 Company Profile
- 16.2.2 Main Business and Colourless glass Information
- 16.2.3 SWOT Analysis of Company B
- 16.2.4 Company B Colourless glass Sales, Revenue, Price and Gross Margin (2014-2019)

16.3 Company C

- 16.3.1 Company Profile
- 16.3.2 Main Business and Colourless glass Information
- 16.3.3 SWOT Analysis of Company C



16.3.4 Company C Colourless glass Sales, Revenue, Price and Gross Margin (2014-2019)

16.4 Company D

- 16.4.1 Company Profile
- 16.4.2 Main Business and Colourless glass Information
- 16.4.3 SWOT Analysis of Company D
- 16.4.4 Company D Colourless glass Sales, Revenue, Price and Gross Margin (2014-2019)
- 16.5 Company E
- 16.5.1 Company Profile
- 16.5.2 Main Business and Colourless glass Information
- 16.5.3 SWOT Analysis of Company E
- 16.5.4 Company E Colourless glass Sales, Revenue, Price and Gross Margin

(2014-2019)

- 16.6 Company F
- 16.6.1 Company Profile
- 16.6.2 Main Business and Colourless glass Information
- 16.6.3 SWOT Analysis of Company F
- 16.6.4 Company F Colourless glass Sales, Revenue, Price and Gross Margin (2014-2019)
- 16.7 Company G
- 16.7.1 Company Profile
- 16.7.2 Main Business and Colourless glass Information
- 16.7.3 SWOT Analysis of Company G

16.7.4 Company G Colourless glass Sales, Revenue, Price and Gross Margin (2014-2019)



# **Tables & Figures**

### **TABLES AND FIGURES**

Table Abbreviation and Acronyms List Table Research Scope of Colourless glass Report Table Primary Sources of Colourless glass Report Table Secondary Sources of Colourless glass Report Table Major Assumptions of Colourless glass Report Figure Colourless glass Picture Table Colourless glass Classification Table Colourless glass Applications List Table Drivers of Colourless glass Market Table Restraints of Colourless glass Market Table Opportunities of Colourless glass Market Table Threats of Colourless glass Market Table Raw Materials Suppliers List Table Different Production Methods of Colourless glass Table Cost Structure Analysis of Colourless glass Table Key End Users List Table Latest News of Colourless glass Market Table Merger and Acquisition List Table Planned/Future Project of Colourless glass Market Table Policy of Colourless glass Market Table 2014-2024 Regional Export of Colourless glass Table 2014-2024 Regional Import of Colourless glass Table 2014-2024 Regional Trade Balance Figure 2014-2024 Regional Trade Balance Table 2014-2024 North America Colourless glass Market Size (M USD) and Market Volume (Tons) List Figure 2014-2024 North America Colourless glass Market Size (M USD) and CAGR Figure 2014-2024 North America Colourless glass Market Volume (Tons) and CAGR Table 2014-2024 North America Colourless glass Demand (Tons) List by Application Table 2014-2019 North America Colourless glass Key Players Sales (Tons) List Table 2014-2019 North America Colourless glass Key Players Market Share List Table 2014-2024 North America Colourless glass Demand (Tons) List by Type Table 2014-2019 North America Colourless glass Price (USD/Ton) List by Type Table 2014-2024 US Colourless glass Market Size (M USD) and Market Volume (Tons) List



Table 2014-2024 US Colourless glass Import & Export (Tons) List

Table 2014-2024 Canada Colourless glass Market Size (M USD) and Market Volume (Tons) List

Table 2014-2024 Canada Colourless glass Import & Export (Tons) List

Table 2014-2024 Mexico Colourless glass Market Size (M USD) and Market Volume (Tons) List

Table 2014-2024 Mexico Colourless glass Import & Export (Tons) List

Table 2014-2024 South America Colourless glass Market Size (M USD) and Market Volume (Tons) List

Figure 2014-2024 South America Colourless glass Market Size (M USD) and CAGR Figure 2014-2024 South America Colourless glass Market Volume (Tons) and CAGR Table 2014-2024 South America Colourless glass Demand (Tons) List by Application Table 2014-2019 South America Colourless glass Key Players Sales (Tons) List Table 2014-2019 South America Colourless glass Key Players Market Share List Table 2014-2024 South America Colourless glass Demand (Tons) List by Type Table 2014-2019 South America Colourless glass Price (USD/Ton) List by Type Table 2014-2024 Brazil Colourless glass Market Size (M USD) and Market Volume (Tons) List

Table 2014-2024 Brazil Colourless glass Import & Export (Tons) List

Table 2014-2024 Argentina Colourless glass Market Size (M USD) and Market Volume (Tons) List

Table 2014-2024 Argentina Colourless glass Import & Export (Tons) List

Table 2014-2024 Chile Colourless glass Market Size (M USD) and Market Volume (Tons) List

Table 2014-2024 Chile Colourless glass Import & Export (Tons) List

Table 2014-2024 Peru Colourless glass Market Size (M USD) and Market Volume (Tons) List

Table 2014-2024 Peru Colourless glass Import & Export (Tons) List

Table 2014-2024 Asia & Pacific Colourless glass Market Size (M USD) and Market Volume (Tons) List

Figure 2014-2024 Asia & Pacific Colourless glass Market Size (M USD) and CAGR Figure 2014-2024 Asia & Pacific Colourless glass Market Volume (Tons) and CAGR Table 2014-2024 Asia & Pacific Colourless glass Demand (Tons) List by Application Table 2014-2019 Asia & Pacific Colourless glass Key Players Sales (Tons) List Table 2014-2019 Asia & Pacific Colourless glass Key Players Market Share List Table 2014-2024 Asia & Pacific Colourless glass Demand (Tons) List by Type Table 2014-2019 Asia & Pacific Colourless glass Price (USD/Ton) List by Type Table 2014-2024 China Colourless glass Market Size (M USD) and Market Volume (Tons) List



Table 2014-2024 China Colourless glass Import & Export (Tons) List Table 2014-2024 India Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 India Colourless glass Import & Export (Tons) List Table 2014-2024 Japan Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Japan Colourless glass Import & Export (Tons) List Table 2014-2024 South Korea Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 South Korea Colourless glass Import & Export (Tons) List Table 2014-2024 ASEAN Colourless glass Market Size (M USD) List Table 2014-2024 ASEAN Colourless glass Market Volume (Tons) List Table 2014-2024 ASEAN Colourless glass Import (Tons) List Table 2014-2024 ASEAN Colourless glass Export (Tons) List Table 2014-2024 Australia Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Australia Colourless glass Import & Export (Tons) List Table 2014-2024 Europe Colourless glass Market Size (M USD) and Market Volume (Tons) List Figure 2014-2024 Europe Colourless glass Market Size (M USD) and CAGR Figure 2014-2024 Europe Colourless glass Market Volume (Tons) and CAGR Table 2014-2024 Europe Colourless glass Demand (Tons) List by Application Table 2014-2019 Europe Colourless glass Key Players Sales (Tons) List Table 2014-2019 Europe Colourless glass Key Players Market Share List Table 2014-2024 Europe Colourless glass Demand (Tons) List by Type Table 2014-2019 Europe Colourless glass Price (USD/Ton) List by Type Table 2014-2024 Germany Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Germany Colourless glass Import & Export (Tons) List Table 2014-2024 France Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 France Colourless glass Import & Export (Tons) List Table 2014-2024 UK Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 UK Colourless glass Import & Export (Tons) List Table 2014-2024 Italy Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Italy Colourless glass Import & Export (Tons) List Table 2014-2024 Spain Colourless glass Market Size (M USD) and Market Volume



(Tons) List Table 2014-2024 Spain Colourless glass Import & Export (Tons) List Table 2014-2024 Belgium Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Belgium Colourless glass Import & Export (Tons) List Table 2014-2024 Netherlands Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Netherlands Colourless glass Import & Export (Tons) List Table 2014-2024 Austria Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Austria Colourless glass Import & Export (Tons) List Table 2014-2024 Poland Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Poland Colourless glass Import & Export (Tons) List Table 2014-2024 Russia Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Russia Colourless glass Import & Export (Tons) List Table 2014-2024 MEA Colourless glass Market Size (M USD) and Market Volume (Tons) List Figure 2014-2024 MEA Colourless glass Market Size (M USD) and CAGR Figure 2014-2024 MEA Colourless glass Market Volume (Tons) and CAGR Table 2014-2024 MEA Colourless glass Demand (Tons) List by Application Table 2014-2019 MEA Colourless glass Key Players Sales (Tons) List Table 2014-2019 MEA Colourless glass Key Players Market Share List Table 2014-2024 MEA Colourless glass Demand (Tons) List by Type Table 2014-2019 MEA Colourless glass Price (USD/Ton) List by Type Table 2014-2024 Egypt Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Egypt Colourless glass Import & Export (Tons) List Table 2014-2024 Iran Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Iran Colourless glass Import & Export (Tons) List Table 2014-2024 Israel Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Israel Colourless glass Import & Export (Tons) List Table 2014-2024 South Africa Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 South Africa Colourless glass Import & Export (Tons) List Table 2014-2024 GCC Colourless glass Market Size (M USD) and Market Volume



(Tons) List

Table 2014-2024 GCC Colourless glass Import & Export (Tons) List Table 2014-2024 Turkey Colourless glass Market Size (M USD) and Market Volume (Tons) List Table 2014-2024 Turkey Colourless glass Import & Export (Tons) List Table 2014-2019 Global Colourless glass Market Size (M USD) List by Region Table 2014-2019 Global Colourless glass Market Size Share List by Region Table 2014-2019 Global Colourless glass Market Volume (Tons) List by Region Table 2014-2019 Global Colourless glass Market Volume Share List by Region Table 2014-2019 Global Colourless glass Demand (Tons) List by Application Table 2014-2019 Global Colourless glass Demand Market Share List by Application Table 2014-2019 Global Colourless glass Capacity (Tons) List Table 2014-2019 Global Colourless glass Key Vendors Capacity Share List Table 2014-2019 Global Colourless glass Key Vendors Production (Tons) List Table 2014-2019 Global Colourless glass Key Vendors Production Share List Figure 2014-2019 Global Colourless glass Capacity Production and Growth Rate Table 2014-2019 Global Colourless glass Key Vendors Production Value (M USD) List Figure 2014-2019 Global Colourless glass Production Value (M USD) and Growth Rate Table 2014-2019 Global Colourless glass Key Vendors Production Value Share List Table 2014-2019 Global Colourless glass Demand (Tons) List by Type Table 2014-2019 Global Colourless glass Demand Market Share List by Type Table 2014-2019 Regional Colourless glass Price (USD/Ton) List Table 2019-2024 Global Colourless glass Market Size (M USD) List by Region Table 2019-2024 Global Colourless glass Market Size Share List by Region Table 2019-2024 Global Colourless glass Market Volume (Tons) List by Region Table 2019-2024 Global Colourless glass Market Volume Share List by Region Table 2019-2024 Global Colourless glass Demand (Tons) List by Application Table 2019-2024 Global Colourless glass Demand Market Share List by Application Table 2019-2024 Global Colourless glass Capacity (Tons) List Table 2019-2024 Global Colourless glass Key Vendors Capacity Share List Table 2019-2024 Global Colourless glass Key Vendors Production (Tons) List Table 2019-2024 Global Colourless glass Key Vendors Production Share List Figure 2019-2024 Global Colourless glass Capacity Production and Growth Rate Table 2019-2024 Global Colourless glass Key Vendors Production Value (M USD) List Figure 2019-2024 Global Colourless glass Production Value (M USD) and Growth Rate Table 2019-2024 Global Colourless glass Key Vendors Production Value Share List Table 2019-2024 Global Colourless glass Demand (Tons) List by Type Table 2019-2024 Global Colourless glass Demand Market Share List by Type

Table 2019-2024 Regional Colourless glass Price (USD/Ton) List



Table Company A Information List

Table SWOT Analysis of Company A

Table 2014-2019 Company A Colourless glass Product Capacity Production (Tons)

Price Cost (USD/Ton) Production Value (M USD) List

Figure 2014-2019 Company A Colourless glass Capacity Production (Tons) and Growth Rate

Figure 2014-2019 Company A Colourless glass Market Share

Table Company B Information List

Table SWOT Analysis of Company B

Table 2014-2019 Company B Colourless glass Product Capacity Production (Tons)

Price Cost (USD/Ton) Production Value (M USD) List

Figure 2014-2019 Company B Colourless glass Capacity Production (Tons) and Growth Rate

Figure 2014-2019 Company B Colourless glass Market Share

Table Company C Information List

Table SWOT Analysis of Company C

Table 2014-2019 Company C Colourless glass Product Capacity Production (Tons)

Price Cost (USD/Ton) Production Value (M USD) List

Figure 2014-2019 Company C Colourless glass Capacity Production (Tons) and Growth Rate

Figure 2014-2019 Company C Colourless glass Market Share

Table Company D Information List

Table SWOT Analysis of Company D

Table 2014-2019 Company D Colourless glass Product Capacity Production (Tons)

Price Cost (USD/Ton) Production Value (M USD) List

Figure 2014-2019 Company D Colourless glass Capacity Production (Tons) and Growth Rate

Figure 2014-2019 Company D Colourless glass Market Share

Table Company E Information List

Table SWOT Analysis of Company E

Table 2014-2019 Company E Colourless glass Product Capacity Production (Tons)

Price Cost (USD/Ton) Production Value (M USD) List

Figure 2014-2019 Company E Colourless glass Capacity Production (Tons) and Growth Rate

Figure 2014-2019 Company E Colourless glass Market Share

Table Company F Information List

Table SWOT Analysis of Company F

Table 2014-2019 Company F Colourless glass Product Capacity Production (Tons) Price Cost (USD/Ton) Production Value (M USD) List



Figure 2014-2019 Company F Colourless glass Capacity Production (Tons) and Growth Rate

Figure 2014-2019 Company F Colourless glass Market Share

Table Company G Information List

Table SWOT Analysis of Company G

Table 2014-2019 Company G Colourless glass Product Capacity Production (Tons)

Price Cost (USD/Ton) Production Value (M USD) List

Figure 2014-2019 Company G Colourless glass Capacity Production (Tons) and Growth Rate

Figure 2014-2019 Company G Colourless glass Market Share



# I would like to order

Product name: Global Colourless glass Market Report 2019 - Market Size, Share, Price, Trend and Forecast

Product link: https://marketpublishers.com/r/G70DB6F3D66EN.html

Price: US\$ 4,000.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

# Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/G70DB6F3D66EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name: Last name: Email: Company: Address: City: Zip code: Country: Tel: Fax: Your message:

\*\*All fields are required

Custumer signature \_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970



Global Colourless glass Market Report 2019 - Market Size, Share, Price, Trend and Forecast