FitchRatings

Corporates
Diversified Manufacturing
Turkiye

Turkiye Sise ve Cam Fabrikalari AS

Ratings

Long-Term IDR	B
Long-Term Local-Currency IDR	B
Senior Unsecured Debt - Long-Term Rating	B

Outlooks

Long-Term Foreign-Currency IDR	Negative
Long-Term Local-Currency IDR	Negative

Click here for the full list of ratings

ESG and Climate

2035 Climate Vulnerability Signal: 33

Applicable Criteria

Corporates Recovery Ratings and Instrument Ratings Criteria (August 2024)

Corporates Recovery Ratings and Instrument Ratings Criteria (August 2024)

Country-Specific Treatment of Recovery Ratings Criteria (March 2023)

Sector Navigators – Addendum to the Corporate Rating Criteria (January 2026)

Corporate Rating Criteria (January 2026)

This rating report is regarding a rating action taken prior to 10 January 2026.

Related Research

Global Corporates Sector Forecasts Monitor: January 2026

Sisecam UK plc – Recovery Tool (January 2026)

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Fitch Ratings' December affirmation of the ratings of Turkiye Sise ve Cam Fabrikalari AS (Sisecam) reflected the fact that the company's margins bottomed out in 4Q24 and Fitch expects an improvement in the EBITDA margin to above 10% in 2026 on a better industry outlook, especially in flat glass, as well as benefits from refinancings.

The Negative Outlook reflects our expectation that key credit metrics (including leverage, coverage and free cash flow (FCF)) will remain weak for the rating in 2026 on EBITDA below prior expectations, still high capex and some discretionary dividends. We may revise the Outlook to Stable as we gain confidence in the business recovery.

Key Rating Drivers

Mixed Subsector Outlooks: Sisecam's business environment remains challenging, with subdued demand, pricing pressure from low-cost imports and persistent inflation in Turkiye weighing on volumes and profitability in some business lines. Subsector trends are mixed: chemicals and glassware face pressure, while architectural glass and glass packaging have improved profitability on higher use and supportive pricing. Fitch expects a gradual stabilisation in and after 2026 on easing inflation and selective demand recovery. Diversification, product mix and operational efficiencies keep challenges manageable within the rating.

EBITDA Margin Improving: Margins are improving from the 2024 trough but remain below the above 20% peaks of the pre-inflationary accounting period between 2020 and 2022. Sisecam has improved its EBITDA through operational efficiencies, pricing actions and higher capacity use. Fitch estimates EBITDA margin at about 9% for 2025 from 5% in 2024 under our calculations, rising to about 18% by 2028, supported by stronger performance in architectural glass, glass packaging and industrial glass. Market conditions should stabilise in 2026 from easing inflation, demand recovery and the improved ability to pass costs on to customers. Stronger margins hinge on input-cost control and productivity execution.

Growth Capex, Negative FCF: Sisecam continues large growth capex, including the greenfield flat-glass complex, energy and patterned glass lines in Tarsus (commissioned in September 2025) and glass packaging expansion in Hungary, alongside maintenance. We expect negative FCF in 2025-2026, turning marginally positive in 2027 as major projects ramp up and efficiency gains accumulate. We estimate capex at about USD800 million a year in 2025 and 2026, roughly 13% of revenue, declining to about 7% after Sisecam's expansionary phase. We expect some discretionary dividend payments, similar to distributions made in 2025.

Credit Ratios Stressed but Improving: Leverage remains high for the rating but is declining on EBITDA improvement (new capacity and operational improvement). We expect leverage to remain outside our negative sensitivities until end-2026. We expect EBITDA interest coverage to remain below 2x during 2025 and 2026 as the cost of domestic debt remains high. Stronger EBITDA and further refinancing should see improved coverage from 2027 which would also contribute to an Outlook revision to Stable.

Funding and Liquidity Strengthened: Sisecam signed a long-term International Finance Corporation loan agreement of up to EUR550 million to finance Tarsus investments and refinance short-term working capital loans in Turkiye. This improves funding visibility, lengthens tenor and lowers the effective interest rate. The company maintains a reasonable cash balance and access to uncommitted credit lines, which provide a buffer for short-term needs. Fitch expects Sisecam to repay the remaining USD372 million of the USD700 million bond due in 2026 through available cash balances.

Rating Sensitivities

Factors that Could, Individually or Collectively, Lead to Negative Rating Action/Downgrade

- EBITDA gross leverage above 5.5x
- EBITDA interest coverage below 2.0x
- Substantial deterioration in liquidity, coupled with negative FCF
- Inability to regain cost pass-through and recover pricing power, leaving single-digit EBITDA margin

Factors that Could, Individually or Collectively, Lead to Positive Rating Action/Upgrade

- EBITDA gross leverage below 4.5x on a sustained basis
- EBITDA interest coverage above 3.0x
- Positive sustainable FCF margin

Issuer Profile

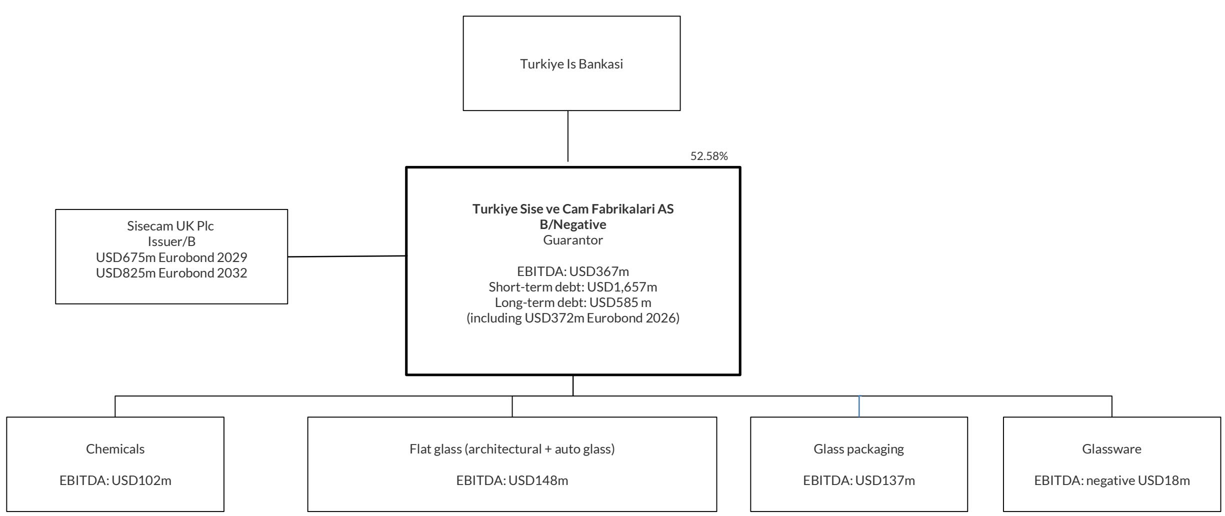
Sisecam is a Turkish-based multinational industrial corporation with manufacturing operations in 13 countries. It is one of the world's top glassware producers and among the top-five producers of glass packaging and flat glass. It is also the fourth-largest soda ash producer and a world leader in chromium chemicals.

Financial Summary

(TRYm)	2022	2023	2024	2025E	2026F	2027F
EBITDA margin (%)	19.7	13.5	5.1	9.2	11.5	14.7
EBITDA leverage (x)	2.3	4.4	14.8	7.7	5.6	3.9
EBITDA net leverage (x)	1.1	2.5	9.3	5.7	4.6	3.3
FCF margin (%)	0.5	4.1	-13.3	—	—	—
EBITDA interest coverage (x)	7.3	2.4	0.5	1.1	1.9	2.9

Source: Fitch Ratings, Fitch Solutions

Simplified Group Structure Diagram



Note: In January 2026 Sisecam issued a seven-year USD500 million bond under Sisecam UK Ltd. to refinance existing facilities.
Source: Fitch Ratings, Fitch Solutions, Sisecam, as of end-September 2025, using exchange rate of USD1/TRY41.5

B+ and Below Considerations

Factors	b+	b	b-	ccc+	ccc	ccc-	cc
Business model	Robust	Sustainable	Intact	Redeemable	Compromised	Disrupted	Irredeemable
Execution risk in strategy	Limited	Moderate	Meaningful	Challenging yet achievable	Uncertain	Highly speculative	Not credible
Cash flow profile	Consistently positive	Neutral to positive	Volatile	Mostly negative	Consistently negative	Accelerating cash outflow	Irreversible outflow
Leverage profile	Clear deleveraging path	Deleveraging capacity	High but sustainable	Significant outlier	Unsustainable	Disproportionate and increasing	Unrecoverable
Governance and financial policy	Committed	Some commitment to deleveraging	Aggressive	Ineffective	Uncommitted	Hostile	Inevitable balance sheet restructuring
Refinancing risk	Limited	Manageable	High	Off market options	Excessive	Unavailable	Imminent
Liquidity	Comfortable	Satisfactory	Limited	Minimal headroom	Poor/partly funded	Unfunded	De facto insolvent

Source: Fitch Ratings

Recovery Analysis

Issuer	Turkiye Sise ve Cam Fabrikalari AS		
Issuer Default Rating	B	**As of**	30 Sep 25
Sector	Building and Materials	**Currency**	USDm
Country	Turkiye	**Country group**	D

Going concern (GC) enterprise value (EV)	
GC EBITDA	600
EBITDA multiple (x)	5.0
GC value from alternative method	-
Additional value from affiliates, minority interest, other	-
GC EV	**3,000**

Liquidation value	**Book value**	**Advance rate (%)**	**Available to creditors**
Cash	1,020	0	-
Accounts receivable	836	60	502
Inventory	1,217	40	487
Net property, plant and equipment	4,312	40	1,725
Liquidation value of off-balance-sheet assets	-	100	-
Additional value from affiliates, minority interest, other	-	100	-
Total liquidation value			**2,713**

EV for claims distribution	
Greater of GC enterprise or liquidation value	2,789
Less administrative claims	279
Total EV	**2,510**

Distribution of value

					Before country-specific considerations			After country-specific considerations		
Priority	**Amount**	**Concession allocation**	**Value recovered**	**Recovery (%)**	**Recovery Rating**	**Notching**	**Rating**	**Recovery Rating**	**Notching**	**Rating**
Unsecured	3,742	0	2,510	67	RR3	+1	B+	RR4	0	B

Source: Fitch Ratings, Fitch Solutions, Turkiye Sise ve Cam Fabrikalari AS

- The recovery analysis assumes that Sisecam would be reorganised as a going concern in bankruptcy rather than liquidated.
- We use an administrative claim of 10% in line with the industry median and peer group.
- The recovery analysis is translated into US dollars from Turkish lira as the majority of the borrowings are in dollars. The translation used a Fitch-calculated exchange rate for 30 September 2025.
- Our going concern EBITDA estimate of USD600 million reflects operational efficiencies and cost pass-through capabilities.
- We apply an enterprise value multiple of 5x EBITDA to the going-concern EBITDA to calculate a post-reorganisation enterprise value, given Sisecam's leading market positions in Turkiye and the international markets, and the relatively strong barriers to entry.
- The waterfall analysis is based on the updated capital structure and consists of senior unsecured debt of USD3,742 million, which includes outstanding notes of USD1.87 billion and other bank credit facilities and loans (all equal ranking). The company has USD237 million equivalent factoring facilities, which we assume will not be available (after discount) in a default scenario, reducing distributable value accordingly.
- These assumptions, constrained by Turkiye's group D country classification for the Recovery Rating, result in a recovery rate for the senior unsecured instrument within the 'RR4' category and debt rating at the same levels as the IDR.

Fitch's Key Rating-Case Assumptions

Fitch's Key Assumptions Within our Rating Case for the Issuer

- Revenue in Turkish lira to increase on average by 22% between 2025 and 2028, reflecting a gradual improvement in market conditions
- EBITDA margin to gradually rise towards 18% by 2028, reflecting cost control and improved pricing ability
- Capex peaking during 2025 and 2026 at about USD800 million a year
- Fitch assumed dividends distribution throughout our forecast horizon
- Negative FCF, turning modestly positive for 2027, following margin improvement and capex reduction

Liquidity and Debt Structure

During 9M25, reported debt declined to TRY155 billion equivalent, from TRY160.5 billion at end-2024 (restated under IAS), while reported cash was TRY42.4 billion. Fitch expects that Sisecam will sustain high gross leverage over the next two years to finance capex plans but will repay the remainder of the USD700 million notes due in 2026, due to adequate cash build-up.

Short-term debt constitutes about 44% of Sisecam's debt, with about 80% of the debt denominated in hard currencies (dollars and euros). Uncommitted bank lines of about USD500 million with Turkish banks will remain accessible for the company in a stress scenario in our view, particularly given the company's status as a multinational conglomerate with strong banking relationships.

Liquidity and Debt Maturities

Liquidity Analysis

(TRYm)	2025E	2026F	2027F
Available liquidity			
Beginning cash balance	49,947	-5,078	-51,115
Rating case FCF after acquisitions and divestitures	-14,808	-13,086	6,531
Total available liquidity (A)	**35,139**	**-18,164**	**-44,584**
Liquidity uses			
Debt maturities	-40,218	-32,951	-9,721
Total liquidity uses (B)	**-40,218**	**-32,951**	**-9,721**
Liquidity calculation			
Ending cash balance (A+B)	-5,078	-51,115	-54,306

Revolver availability	—	—	—
Ending liquidity	**-5,078**	**-51,115**	**-54,306**
Liquidity score (x)	0.9	-0.6	-4.6

Source: Fitch Ratings, Fitch Solutions, Turkiye Sise ve Cam Fabrikalari AS

Scheduled Debt Maturities

(TRYm)	**31 Dec 24**
2025[a]	40,218
2026	32,951
2027	9,721
2028	1,241
2029	24,072
Thereafter	27,420
Total	**135,623**

[a] Includes factoring
Source: Fitch Ratings, Fitch Solutions, Turkiye Sise ve Cam Fabrikalari AS

Financial Data

(TRYm)	2022[a]	2023[b]	2024[c]	2025E	2026F	2027F
Summary income statement						
Gross revenue	170,655	151,994	185,589	226,832	288,157	349,735
Revenue growth (%)	432.3	-10.9	22.1	22.2	27.0	21.4
EBITDA before income from associates	33,622	20,567	9,408	20,889	33,217	51,355
EBITDA margin (%)	19.7	13.5	5.1	9.2	11.5	14.7
EBITDA after associates and minorities	32,232	18,924	9,178	20,659	32,987	51,125
EBIT	21,791	10,296	-4,492	2,929	10,514	23,945
EBIT margin (%)	12.8	6.8	-2.4	1.3	3.7	6.9
Gross interest expense	-4,883	-7,329	-18,750	-19,704	-17,082	-17,541
Summary balance sheet						
Readily available cash and equivalents	38,184	34,720	49,947	41,383	30,830	32,541
Debt	74,903	82,899	135,623	159,813	183,989	198,971
Net debt	36,720	48,179	85,676	118,430	153,159	166,429
Summary cash flow statement						
EBITDA	33,622	20,567	9,408	20,889	33,217	51,355
Cash interest paid	-4,426	-7,775	-18,101	-19,704	-17,082	-17,541
Cash tax	-4,953	-2,370	-1,528	-1,912	-3,040	-4,700
Dividends received less dividends paid to minorities (inflow/outflow)	-1,390	-1,643	-230	-230	-230	-230
Other items before FFO	2,628	11,912	3,958	—	—	—
FFO	26,988	22,778	1,026	6,535	19,072	33,508
FFO margin (%)	15.8	15.0	0.6	2.9	6.6	9.6
Change in working capital	-10,551	7,494	7,147	11,342	7,823	2,042
CFO (Fitch-defined)	16,437	30,272	8,173	17,877	26,895	35,550
Total non-operating/nonrecurring cash flow	—	—	—	—	—	—
Capex	-12,900	-20,991	-30,099	—	—	—
Capital intensity (capex/revenue) (%)	7.6	13.8	16.2	—	—	—
Common dividends	-2,682	-3,069	-2,706	—	—	—
FCF	855	6,212	-24,633	—	—	—
FCF margin (%)	0.5	4.1	-13.3	—	—	—
Net acquisitions and divestitures	-494	2,002	1,652	—	—	—
Other investing and financing cash flow items	-7,744	-15,406	13,647	—	—	—
Net debt proceeds	13,498	5,532	27,877	8,641	3,759	-3,588
Net equity proceeds	766	-174	-987	—	—	—
Total change in cash	6,882	-3,837	15,904	-8,564	-10,554	1,712
Calculations for forecast publication						
Capex, dividends, acquisitions and other items before FCF	-16,076	-22,058	-31,154	-32,685	-39,981	-29,019
FCF after acquisitions and divestitures	361	8,214	-22,981	-14,808	-13,086	6,531
FCF margin after net acquisitions (%)	0.2	5.4	-12.4	-6.5	-4.5	1.9
Gross leverage ratios (x)						
EBITDA leverage	2.3	4.4	14.8	7.7	5.6	3.9
(CFO-capex)/debt (%)	4.7	11.2	-16.2	-7.6	-6.1	4.7
Net leverage ratios (x)						
EBITDA net leverage	1.1	2.5	9.3	5.7	4.6	3.3
(CFO-capex)/net debt (%)	9.6	19.3	-25.6	-10.3	-7.4	5.6
Coverage ratios (x)						
EBITDA interest coverage	7.3	2.4	0.5	1.1	1.9	2.9

(TRYm)	2022[a]	2023[b]	2024[c]	2025E	2026F	2027F

[a]2022 year-end is as reported and therefore IAS-29 and indexed to 2023 year-end.
[b]2023 year-end is as reported and therefore IAS-29 and indexed to 2023 year-end.
[c]2024 year-end is as reported and therefore IAS-29 and indexed to 2024 year-end
CFO – Cash flow from operations
Source: Fitch Ratings, Fitch Solutions

How to Interpret the Forecast Presented

The forecast presented above is based on Fitch Ratings' internally produced, conservative rating case forecast. It does not represent the forecast of the rated issuer. The forecast set out above is only one component used by Fitch Ratings to assign a rating or determine a rating outlook, and the information in the forecast reflects material but not exhaustive elements of Fitch Ratings' rating assumptions for the issuer's financial performance. As such, it cannot be used to establish a rating, and it should not be relied on for that purpose. Fitch Ratings' forecasts are constructed using a proprietary internal forecasting tool, which employs Fitch Ratings' own assumptions on operating and financial performance that may not reflect the assumptions that you would make. Fitch Ratings' own definitions of financial terms such as EBITDA, debt or free cash flow may differ from your own such definitions. Fitch Ratings may be granted access, from time to time, to confidential information on certain elements of the issuer's forward planning. Certain elements of such information may be omitted from this forecast, even where they are included in Fitch Ratings' own internal deliberations, where Fitch Ratings, at its sole discretion, considers the data may be potentially sensitive in a commercial, legal or regulatory context. The forecast (as with the entirety of this report) is produced strictly subject to the disclaimers set out at the end of this report. Fitch Ratings may update the forecast in future reports but assumes no responsibility to do so. Original financial statement data for historical periods is processed by Fitch Solutions on behalf of Fitch Ratings. Key financial adjustments and all financial forecasts credited to Fitch Ratings are generated by rating agency staff.

Fitch Adjusted Financials

(TRYm as of 31 Dec 24)	Notes and formulas	Standardised values	Cash adjustment	Lease treatment	Other adjustments	Adjusted values
Income statement summary						
Revenue		185,589	—	—	—	185,589
EBITDA	(a)	10,822	—	-1,413	0	9,408
Depreciation and amortization		-15,091	—	1,190	0	-13,901
EBIT		-4,269	—	-223	-0	-4,492
Balance sheet summary						
Debt	(b)	127,967	—	—	7,656	135,623
Of which other off-balance-sheet debt		—	—	—	—	—
Lease-equivalent debt		—	—	—	—	—
Lease-adjusted debt		127,967	—	—	7,656	135,623
Readily available cash and equivalents	(c)	53,659	-3,712	—	0	49,947
Not readily available cash and equivalents		—	3,712	—	-0	3,712
Cash flow summary						
EBITDA	(a)	10,822	—	-1,413	0	9,408
Dividends received from associates less dividends paid to minorities	(d)	-230	—	—	—	-230
Interest paid	(e)	-18,324	—	223	-0	-18,101
Interest received	(f)	7,519	—	—	—	7,519
Preferred dividends paid	(g)	—	—	—	—	—
Cash tax paid		-1,528	—	—	—	-1,528
Other items before FFO		3,958	—	—	—	3,958
FFO	(h)	2,216	—	-1,190	—	1,026
Change in working capital		14,803	—	—	-7,656	7,147
CFO	(i)	17,020	—	-1,190	-7,656	8,173
Non-operating/nonrecurring cash flow		—	—	—	—	—
Capex	(j)	-30,099	—	—	—	-30,099
Common dividends paid		-2,706	—	—	—	-2,706
FCF		-15,786	—	-1,190	-7,656	-24,633
Gross leverage (x)						
EBITDA leverage	b / (a+d)	12.1	—	—	—	14.8
(CFO-capex)/debt (%)	(i+j) / b	-10.2	—	—	—	-16.2

(TRYm as of 31 Dec 24)	Notes and formulas	Standardised values	Cash adjustment	Lease treatment	Other adjustments	Adjusted values
Net leverage (x)						
EBITDA net leverage	(b-c) / (a+d)	7.0	—	—	—	9.3
(CFO-capex)/net debt (%)	(i+j) / (b-c)	-17.6	—	—	—	-25.6
Coverage (x)						
EBITDA interest coverage	(a+d) / (-e)	0.6	—	—	—	0.5

CFO – Cash flow from operations
Note: The standardised items presented above are based on Fitch's taxonomy for the given sector and region.
Reported items may not match the Fitch taxonomy, but they are captured into corresponding lines accordingly.
Debt includes other off-balance-sheet debt.
Debt in the standardised values column excludes lease liabilities of TRY2.8 billion.
Source: Fitch Ratings, Fitch Solutions, Turkiye Sise ve Cam Fabrikalari AS

Peer Analysis

Sisecam's business profile and profitability margins are comparable to those of Hestiafloor 2 (B+/Stable) and Tarkett Participation (B+/Positive). Sisecam benefits from healthy geographical diversification and exposure to several industries, including construction, automotive and energy, and has leading market shares in its core markets. However, the rating is constrained by high EBITDA leverage at 7.7x (gross leverage) and 5.7x (net leverage) at end-2025, improving to 5.6x (gross) and 4.6x (net) at end-2026, weaker demand in some lines, and exposure to a hyperinflationary domestic market and FX risk.

Peer Financial Summary

Company	Issuer Default Rating	Financial statement date	EBITDA margin (%)	EBITDA leverage (x)	EBITDA net leverage (x)	FCF margin (%)	EBITDA interest coverage (x)
Turkiye Sise ve Cam Fabrikalari AS	B						
	B	2024	5.1	14.8	9.3	-13.3	0.5
	B	2023	13.5	4.4	2.5	4.1	2.4
	B	2022	19.7	2.3	1.1	0.5	7.3
Owens Corning	BBB+						
	BBB	2024	23.9	1.9	1.7	9.0	11.6
	BBB	2023	23.5	1.3	0.6	10.0	17.6
	BBB	2022	23.3	1.3	0.8	11.8	19.1
Arcelik A.S.	B+						
	BB-	2024	3.1	10.4	7.2	-7.0	0.9
	BB-	2023	6.5	6.0	3.4	-12.1	2.1
	BB-	2022	8.6	4.5	2.6	-4.4	3.9

Source: Fitch Ratings, Fitch Solutions.

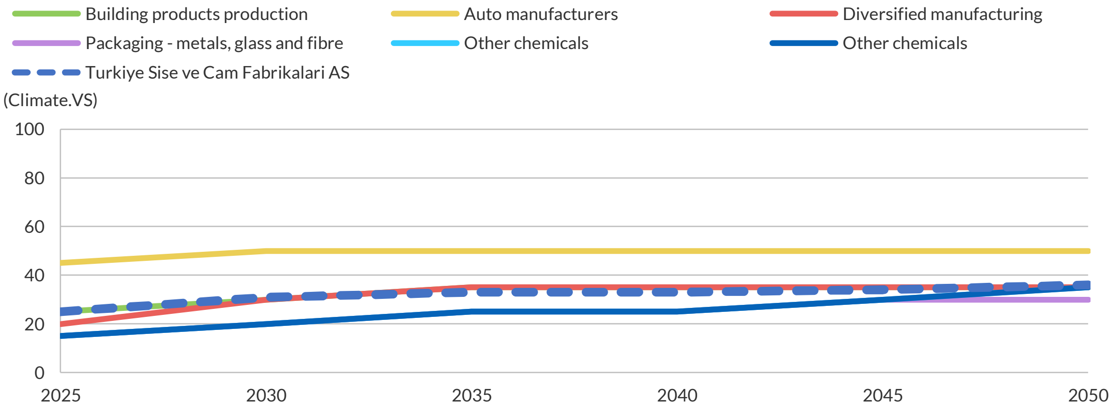
Climate Vulnerability Considerations

Fitch uses Climate Vulnerability Signals (Climate.VS) as a screening tool to identify credits with higher exposure to climate-related risks. If Fitch identifies an entity as higher risk (i.e. its Climate.VS in 2035 is 50 or higher), the entity receives additional analysis and consideration in rating reviews. Climate.VS range from 0 (lowest risk) to 100 (highest risk). For more information on Climate.VS, see Fitch's Corporate Rating Criteria. For more detailed, sector-specific information on how Fitch perceives climate-related transition risks, see Fitch's latest Climate Vulnerability Signals for Non-Financial Corporate Sectors report.

The 2024 revenue-weighted Climate.VS for Sisecam for 2035 is 33 out of 100, suggesting low exposure to climate-related risks in that year.

Climate.VS Evolution

As Dec 31, 2024



Source: Fitch Ratings

ESG Considerations

The highest level of ESG credit relevance is a score of '3', unless otherwise disclosed in this section. A score of '3' means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. Fitch's ESG Relevance Scores are not inputs in the rating process; they are an observation on the relevance and materiality of ESG factors in the rating decision. For more information on Fitch's ESG Relevance Scores, visit https://www.fitchratings.com/topics/esg/products#esg-relevance-scores.

FitchRatings

Turkiye Sise ve Cam Fabrikalari AS

Corporates Ratings Navigator
Building Products

Credit-Relevant ESG Derivation

Turkiye Sise ve Cam Fabrikalari AS has 6 ESG potential rating drivers

- Turkiye Sise ve Cam Fabrikalari AS has exposure to waste & impact management risk and supply chain management risk but this has very low impact on the rating.
- Turkiye Sise ve Cam Fabrikalari AS has exposure to labor relations & practices risk but this has very low impact on the rating.
- Governance is minimally relevant to the rating and is not currently a driver.

			ESG Relevance to Credit Rating
key driver	0	issues	5
driver	0	issues	4
potential driver	6	issues	3
not a rating driver	6	issues	2
	2	issues	1

Environmental (E) Relevance Scores

General Issues	E Score	Sector-Specific Issues	Reference	E Relevance
GHG Emissions & Air Quality	2	Emissions from production, manufacturing and distribution	Diversification; Competitive Position; Profitability	5
Energy Management	2	Energy use in production, manufacturing, product	Diversification; Competitive Position; Profitability	4
Water & Wastewater Management	2	Water usage in production and manufacturing	Diversification; Competitive Position; Profitability	3
Waste & Hazardous Materials Management; Ecological Impacts	3	Impact of product lifecycle and end-of-life materials; supply chain management -products	Diversification; Competitive Position; Profitability	2
Exposure to Environmental Impacts	2	Effect of extreme weather scenarios on PPE, inventory, and/or profitability	Diversification; Competitive Position; Profitability	1

How to Read This Page
ESG relevance scores range from 1 to 5 based on a 15-level color gradation. Red (5) is most relevant to the credit rating and green (1) is least relevant.
The Environmental (E), Social (S) and Governance (G) tables break out the ESG general issues and the sector-specific issues that are most relevant to each industry group. Relevance scores are assigned to each sector-specific issue, signaling the credit-relevance of the sector-specific issues to the issuer's overall credit rating. The Criteria Reference column highlights the factor(s) within which the corresponding ESG issues are captured in Fitch's credit analysis. The vertical color bars are visualizations of the frequency of occurrence of the highest constituent relevance scores. They do not represent an aggregate of the relevance scores or aggregate ESG credit relevance.
The Credit-Relevant ESG Derivation table's far right column is a visualization of the frequency of occurrence of the highest ESG relevance scores across the combined E, S and G categories. The three columns to the left of ESG Relevance to Credit Rating summarize rating relevance and impact to credit from ESG issues. The box on the far left identifies any ESG Relevance Sub-factor issues that are drivers or potential drivers of the issuer's credit rating (corresponding with scores of 3, 4 or 5) and provides a brief explanation for the relevance score. All scores of '4' and '5' are assumed to reflect a negative impact unless indicated with a '+' sign for positive impact.
Classification of ESG issues has been developed from Fitch's sector ratings criteria. The General Issues and Sector-Specific Issues draw on the classification standards published by the United Nations Principles for Responsible Investing (PRI), the Sustainability Accounting Standards Board (SASB), and the World Bank.

Social (S) Relevance Scores

General Issues	S Score	Sector-Specific Issues	Reference	S Relevance
Human Rights, Community Relations, Access & Affordability	1	n.a.	n.a.	5
Customer Welfare - Fair Messaging, Privacy & Data Security	2	Product quality and safety	Diversification; Competitive Position; Profitability; Financial Flexibility	4
Labor Relations & Practices	3	Impact of labor negotiations and employee (dis)satisfaction	Diversification; Competitive Position; Industry Dynamics; Profitability	3
Employee Wellbeing	2	Worker safety and accident prevention	Diversification; Competitive Position; Industry Dynamics; Profitability	2
Exposure to Social Impacts	1	Social resistance towards facilities	Diversification; Profitability	1

Governance (G) Relevance Scores

General Issues	G Score	Sector-Specific Issues	Reference	G Relevance
Management Strategy	3	Strategy development and implementation	Management and Corporate Governance	5
Governance Structure	3	Board independence and effectiveness; ownership concentration	Management and Corporate Governance	4
Group Structure	3	Complexity, transparency and related-party transactions	Management and Corporate Governance	3
Financial Transparency	3	Quality and timing of financial disclosure	Management and Corporate Governance	2
				1

CREDIT-RELEVANT ESG SCALE

How relevant are E, S and G issues to the overall credit rating?

5	Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to "higher" relative importance within Navigator.
4	Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to "moderate" relative importance within Navigator.
3	Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to "lower" relative importance within Navigator.
2	Irrelevant to the entity rating but relevant to the sector.
1	Irrelevant to the entity rating and irrelevant to the sector.

ESG Scoring

ESG relevance scores range from '1' to '5' based on a 15-level colour gradation. Red (5) is most relevant to the credit rating and green (1) is least relevant.

The Environmental (E), Social (S) and Governance (G) tables break out the general and the sector-specific issues that are most relevant to each industry group. Relevance scores are assigned to each sector-specific issue, signalling the credit relevance of the sector-specific issues to an issuer's overall credit rating. The Reference column highlights the factor(s) within which the corresponding ESG issues are captured in Fitch's credit analysis.

The panels underneath the relevance scores tables are visualisations of the frequency of occurrence of the highest ESG relevance scores across the combined E, S and G categories. The Score columns summarise rating relevance and impact to credit from ESG issues. The column on the far left identifies any ESG relevance sub-factor issues that are drivers or potential drivers of an issuer's credit rating (corresponding with scores of '3', '4' or '5'). All scores of '4' and '5' are assumed to reflect a negative impact unless indicated with a '+' sign for positive impact.

Classification of ESG issues has been developed from Fitch's sector ratings criteria. The general and sector-specific issues draw on the classification standards published by the UN Principles for Responsible Investing, the Sustainability Accounting Standards Board and the World Bank.

Credit-Relevant ESG Scale

5	Highly relevant, a key rating driver that has a significant impact on the rating on an individual basis. Equivalent to 'Higher' relative importance within the Navigator.
4	Relevant to rating, not a key rating driver but has an impact on the rating in combination with other factors. Equivalent to 'Moderate' relative importance within the Navigator.
3	Minimally relevant to rating, either very low impact or actively managed in a way that results in no impact on the entity rating. Equivalent to 'Lower' relative importance within the Navigator.
2	Irrelevant to the entity rating but relevant to the sector.
1	Irrelevant to the entity rating and irrelevant to the sector.

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For information on the participation status in the rating process of an issuer listed in this report, please refer to the most recent rating action commentary for the relevant issuer, available on the Fitch Ratings website.

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