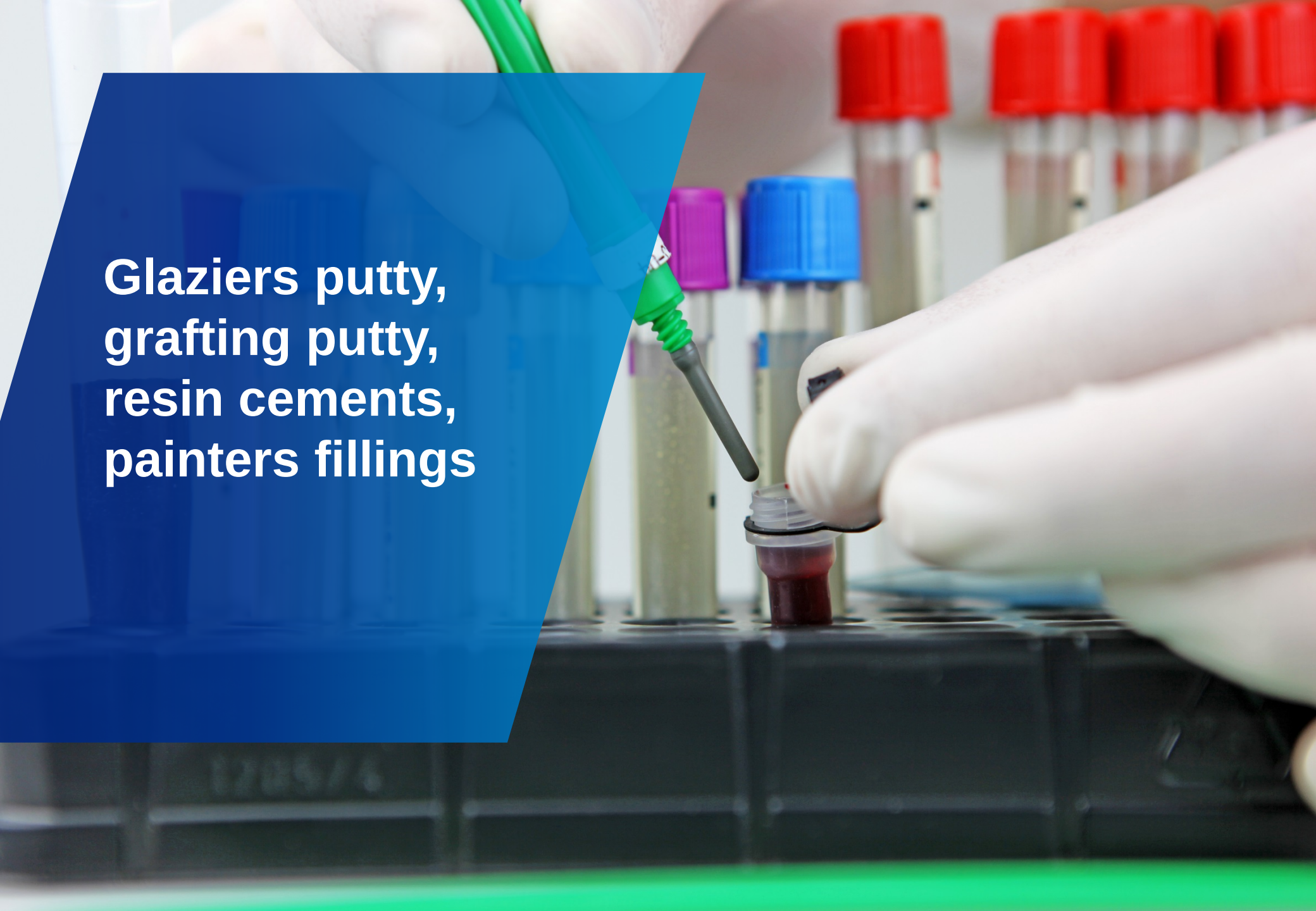

Glaziers putty,
grafting putty,
resin cements,
painters fillings

DISCLAIMER

Our findings, observations and/or recommendations are those that we could reasonably derive from the procedures or scope of services performed. The specific procedures performed were agreed with Georgian National Investment Agency (the Client) and were performed by us as set forth in the Report.

Our work was carried out solely based on the publicly available research data.

We have indicated within our Report the sources of the information presented and have satisfied ourselves, so far as possible, that the information presented in our Report is consistent with other information which was made available to us in the course of our work in accordance with the terms of the Contract. We have not, however, sought to establish the reliability of the sources by reference to other evidence.

All recommendations, provided to you with/in this Report that refer to the future have some limitations in the sense that they are based on the assumptions valid on the issuance date. These assumptions could change with time, after the date of this Report issuance, and so could lose their value.

References to 'KPMG Analysis' in this Report indicate only that we have (where specified) undertaken certain analytical activities on the underlying data to arrive at the information presented; we do not accept responsibility for the underlying data.

This report was commissioned by the LEPL "Georgian National Investment Agency" www.investingeorgia.org

Optimal industry capacity

In order to understand the optimal/maximum industry capacity of production of the Glaziers putty, grafting putty, resin cements and painters fillings in Georgia, we analyzed the potential consumption of the Georgian production by the countries of the region (EU, Ukraine, Turkey, Southern Caucasus and Central Asia) and Russia, assuming that major part of the products will be exported to these countries. The consumption has been analyzed based on the supply/demand data. We calculated the gap between import and export in these countries, as well as considered the existing production, potential capacity increase (pipeline) and consumption data to understand the potential volume of the Glaziers putty, grafting putty, resin cements and painters fillings that might be exported to these countries. In addition, we analyzed the main countries from which Glaziers putty, grafting putty, resin cements and painters fillings are imported, and considering several factors, identified the countries which can potentially be replaced by Georgian imports (partially). The factors include:

- distance, i.e. transportation costs,
- economic and political factors,
- ease of access to these countries by Georgia.

Based on the analysis of the above factors for each country in the region and Russia, as well as considering the overall share of the importing countries, which might be potentially replaced, we calculated approximate maximum share of the potential import of the Glaziers putty, grafting putty, resin cements and painters fillings by Georgia to these countries.

The results are as follows:

Country	Import/export gap (USD m)	Existence of production facilities	Main exporter country/region	Total export in tons (2014 data)	Potential replacement	Share of import of the potential replacement countries in total import	Total imported tons by the potential replacement countries (2014 data)	Potential share of import from Georgia	Potential volume (tons)
Turkey	4.48	yes	Free zones, Belgium, Germany	109,374	Belgium, Germany	25.0%	27,343	7%	1,914
Urkaine	79.24	yes	Turkey, Poland	227,146	Turkey	72.8%	165,371	10%	16,537
Armenia	5.91	yes	Iran, Turkey, China, UAE	5,901	Turkey, China, UAE	54.1%	3,191	30%	957
Azerbaijan	8.02	yes	Belarus, Turkey, Iran, Greece, Netherlands, Finland, Russia, Germany	1,368	Belarus, Greece, Netherlands, Finland, Russia, Germany	48.5%	663	20%	133
Central Asia	76	yes	Russia, Poland, Turkey, Germany, Kazakhstan	99,154	Poland, Germany Turkey	13.6%	13,511	5%	676
Russia	510	yes	Poland, Finland, Turkey, Korea, Estonia	433,628	Turkey, Korea	21.0%	91,251	7%	6,388
EU	(2,072)	yes			n/a				
TOTAL									**26,604**

The analysis shows, that there is a gap between the import and export in the countries of the region, except for EU. As the gap in the EU is negative, which shows that the export exceeds import, as well as considering that the biggest producers of chemical products, particularly paint, varnish and other coating are based in the EU countries, we considered that the possibility to access these markets is low, therefore didn't consider EU as a potential consumer of the Georgian production.

Optimal industry capacity and estimated investment

The calculated optimal capacity of the production of Glaziers putty, grafting putty, resin cements, painters fillings in Georgia is 40,000 to 45,000 tons per year

The estimated investment is USD23.5-24.3 million

As for other countries/regions the gap is significant. Notwithstanding the existence of the production facilities in all of the countries/regions, the demand exceeds supply and there is a potential for other supplier to enter these markets. As an example, the gap between the import/export in Ukraine is USD79.24 million. Significant share of the export of Glaziers putty, grafting putty, resin cements and painters fillings from Ukraine is exported to the neighbor countries, however there is still significant import of the Glaziers putty, grafting putty, resin cements, painters fillings to the country. The main importer countries are Turkey and Poland. Considering the distance factor, as well as ease of access of Georgia to Ukraine, i.e. common maritime boundary, we assumed that Georgia might potentially take up some share of the imports from the Turkey. The share of import from the Turkey to Ukraine is 72.8% in the total import of the Glaziers putty, grafting putty, resin cements and painters fillings to the country, which is 165,371 tons in volume terms. We assumed that Georgia could potentially take up maximum 10% of the imports from Turkey considering the potential specific quality, brand and pricing factors of the products. Thus the potential volume of the import from Georgia can be around 16,537 tons.

The same approach has been applied to the analysis of other countries. For the countries, which do not have local production, bigger potential share of import from Georgia has been applied. We also considered the current political factors in the region, however we assumed that this might potentially have a short-term impact, therefore adjusted the potential share accordingly (e.g. in case of the trade between Russia and Ukraine, we assumed that it might potentially continue and left some share for the mutual trade).

In addition, we also assumed that up to 25% of the local consumption of Glaziers putty, grafting putty, resin cements and painters fillings might be supplied by the new market entrant. Based on our analysis, in 2013 consumption of Paint, varnish and other coating in Georgia amounted to 67,834 tons. Based on the import structure, we assume that around 79% of the consumption comprise Glaziers putty, grafting putty, resin cements and painters fillings, thus the potential volume would be 53,720 tons. The 25% of this volume would be around 13,430 tons per year. Thus, based on the calculations of import/export data and the potential consumption in Georgia (assuming that the consumption volume will not be changed significantly), the optimal capacity of the production in Georgia would be around 40,034 tons per year, i.e. range of 40-45 thousand tons per year.

In order to estimate the approximate investment for a manufacturing facility with the capacity of 40,000 - 45,000 tons per year, we searched for similar projects throughout several countries. Based on the results of our research, we identified the following projects in different countries:

Comparable projects

Company	Plant Location	Date	Investment, USD mln	Capacity, thousand tons	Investment per ton, USD
Asian Paints	Nanjangud, India	2014	397	600	662
Asian Paints	Andhra Pradesh, India	2015	282	400	706
Hempel	Nashik, India	2014	4	10	394
Industry average					*587*

While selecting the projects we considered ones constructed after 2013 only in order to have most recent data. The estimation has been performed based on the available data and educated guess, therefore it is recommended to perform thorough analysis before commencing to a certain project.

Based on the information on the investment amounts, which includes construction of the plant, storage place and related infrastructure facilities, installation of equipment, we calculated the cost per ton, which is around USD587 on average. Thus the estimated investment would be from USD23.5 million to USD24.3 million. This is an approximate range, as the factors like country specifics, construction costs, availability of technologies have not been analyzed for Georgia in detail.

As there are several product types in the group, we suggest that the new entrants could start with the production of most widely used product, e.g. glaziers putty. Further integration of other products might become feasible when the company gains certain level of brand awareness in the targeted markets. Concentration on one product group would also decrease the required amount of initial investment. However it should be noted that the technologies for production of glaziers putty, grafting putty, resin cements, painters fillings are quite similar.

The main competitor countries and companies

The main competitor countries are Russia, Ukraine and Turkey

The major competitor countries can be considered the neighboring countries which have significant production facilities. Based on our analysis, these include:

Main Competitor countries	Main competitor companies
Russia	• OMYA AG • Akzo Nobel Coatings AG • PPG Industries • The Sherwin-Williams Company • BASF • SACAL • Nippon paint • DuPont
Ukraine	• Akzo Nobel Coatings AG • The Sherwin-Williams Company • BASF • DuPont
Turkey	• Mineral technologies • Akzo Nobel Coatings AG • PPG Industries • BASF • DuPont • Kayalar Kimya A.S. • Marshall Boya Ve Vernik Sanayii A.S.

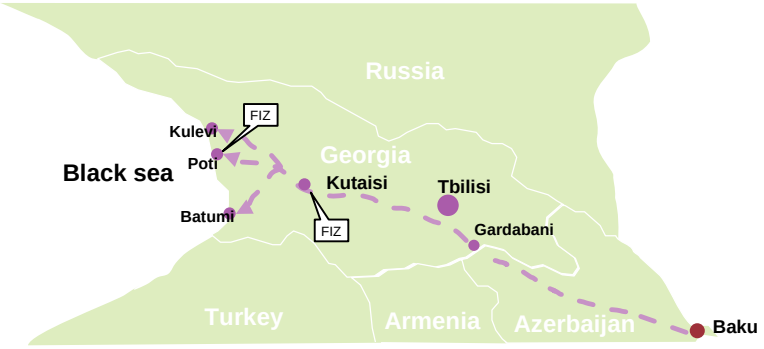
Armenia, Azerbaijan and Kazakhstan also have production facilities, however these are not significant and supply only small portion of the local consumption.

The above companies have significant shares in each country, as well as supply the neighboring countries.

Georgia's competitive advantage in manufacturing the chemical product

Given Georgia's access to the neighboring countries and its favorable economic and political position in the region, the country might potentially negotiate significant investments in the sector

- *Strategic location* – Georgia's strategic location is an asset to any investor. As a bridge between Europe and Asia, Georgia offers direct access to European, Gulf Cooperation Council and CIS markets. Its three major oil and gas pipelines, Black Sea ports, well-developed railway systems, together with its airports are playing an increasingly important role in linking the East and West.
- *Stable macroeconomic environment* – even though macroeconomic situation in the region is unstable, Georgia demonstrates positive expected economic growth of 2.5% in 2015, whereas in neighboring countries either economic contraction or growth close to zero is expected.
- *Liberal Trade Regimes* – Georgia has low tariffs and streamlined border clearance procedures. With a range of Free Trade Agreements, Georgia has access to a 900 million market that is not subject to customs tax, including Turkey, CIS and EU countries.



- *Free Industrial Zones* – Georgia has two industrial zones, in which businesses are exempted from all tax charges, except personal income tax.
- *Raw materials* – Georgia itself may not be the producer of the key raw materials, however calcium carbonate, linseed oil and resins, which are the main raw material for the putty, resin cement production can be easily obtained from neighboring countries like Ukraine, Iran, Azerbaijan and Turkey.
- *Construction projects* – Georgia currently follows strategy of attracting major investments, which stimulate construction sector. Thus the construction materials demand is expected to increase during the foreseeable future.
- *Low electricity cost* – The highest tariff for industrial consumers of one KWh energy in Georgia in 2014 was around USD 0.045 which is lower than in neighbor countries (in Armenia the price is around USD 0.069/per KWh, in Turkey USD 0.093/per KWh and in Azerbaijan 0.057/per KWh).*
- *Labor cost* in manufacturing industry is low amounting to 410 USD monthly on average
- *Legal environment* - No legal restrictions for importing/exporting and producing Glaziers putty, grafting putty, resin cements and painters fillings in Georgia and in the region.
- *Consumption* – There is a significant consumption in the country and in the close region, which indicates on high demand for the Glaziers putty, grafting putty, resin cements and painters fillings.
- *Special Customs regime for exporters* – "Internal Processing Customs Regime", which offers tax incentives for exporting companies. A company may get a license from the Ministry of Finance about "Internal Processing Regime" and receive an exemption from VAT and from import/customs tax on raw materials. If an exporting company sells the products in Georgia, then it has to pay VAT and import/customs tax only for these products.
- *Corporate profit tax* is flat at 15%. *Personal income tax* is 20% and there is no social tax.
- *Depreciation of capital assets* – Based on the Tax code legal entities are able to fully depreciate their assets in the year in which they are put into operation. As a result, significant amount of tax loss-carry forward is generated which could be used during the first years of operation

** Note: The prices are converted to USD based on the exchange rates as at 29 April 2015 (GEL/USD - 2.31, AMD/USD - 475.94, AZN/USD – 1.05, TRY/USD – 2.67)*

Potential expert database

Glaziers putty, grafting putty, resin cements and painters fillings production sector had 92 employees in 2013

We obtained the official data on the average number of people working in chemical production.

The number provided below include not only chemists, but also other positions working in the sector (technical staff, administration etc.). The separate data on chemists is not separately available.

Annual average number of people working in chemicals production 2012-2013 (Declared Data)		
Person		
	2012	**2013**
Chemicals production	5,560	5,414
From above		
Paint or varnish production	116	92

As of 2013 the number of people employed in the chemical production sectors was 5,414. The number of people in Glaziers putty, grafting putty, resin cements and painters fillings production sub-sector was 92.

Key assumptions

Based on the data gathered and analyzed in the previous stages, we performed high level financial calculations for the potential project on producing Glaziers putty, grafting putty, resin cements and painters fillings in Georgia. The more detailed description of the assumptions and relevant calculations are provided further on

- Construction period was forecast to last one year.
- Capacity utilization was forecast to reach 75% in the second projection period and further increase by 25% reaching 100% in the 3th projection period.
- The delay in the launch of the production is due to the forecasted plant construction period. The delay in reaching full forecasted capacity of the production is due to the estimated time needed for marketing the product and building brand recognition, as well as considering learning curve effect.
- During the forecasted period the maximum capacity has been estimated as the nominal capacity determined based on the analysis of the data obtained during the research, i.e. potential debottlenecking of production has not been considered.
- Maintenance capital expenditures were forecast based on initial investment and estimated useful life of the plant of 30 years. As a result, maintenance CAPEX amounted to USD832 thousand, further adjusted for the expected USD inflation.
- Maintenance CAPEX was assumed to be incurred starting from the 5th projection year.
- As per the Georgian tax code, legal entities are able to fully depreciate their assets in the year in which they are commenced. As a result, the project will generate significant amount of tax loss-carry forward in the 1st projection year, making the project effectively exempt from corporate income tax during the first five years.
- WACC is estimated to be 15% for all chemicals products.
- Based on the data provided by Damodaran, industry average capital structure of the chemicals producing companies in the emerging markets comprises of 29% debt and 71% of equity. The capital structure of the project was assumed to be the same as industry average.

Construction project details	
Investment, '000 USD	24,948
Capacity	42,500
Construction timeline	1
Annual maintenance CAPEX '000 USD	832
Domestic sales	*32%*
Export sales	*68%*

Source: KPMG Analysis

Sales projections

We have assumed projection period of 10 years, followed by terminal period. The construction of factory is expected to be finished by the end of the first projection period, after which the plant will be commenced.

Gross and EBITDA margins were forecast to amount to 28.4% and 10.7%, respectively throughout the forecast and terminal periods. EBT margin was projected to vary between 8.4% and 8.9%. Volatility of EBT margin is explained by increasing capital expenditures starting from year 5 and absence of corporate income tax till year 7. The COGS and the SG&A expenses have been calculated based on the industry average margins published in CapitalIQ.

Projected statement of Profit and Loss

USD'000	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TP
Revenues	-	36,214	49,396	50,631	51,644	52,728	53,888	55,020	56,175	57,355	58,502
Growth			*36.4%*	*2.5%*	*2.0%*	*2.1%*	*2.2%*	*2.1%*	*2.1%*	*2.1%*	*2.0%*
COGS	-	(25,929)	(35,368)	(36,252)	(36,977)	(37,753)	(38,584)	(39,394)	(40,221)	(41,066)	(41,887)
Gross profit	-	10,285	14,028	14,379	14,667	14,975	15,304	15,626	15,954	16,289	16,615
Gross profit margin		*28.4%*	*28.4%*	*28.4%*	*28.4%*	*28.4%*	*28.4%*	*28.4%*	*28.4%*	*28.4%*	*28.4%*
SG&A	-	(6,410)	(8,743)	(8,962)	(9,141)	(9,333)	(9,538)	(9,738)	(9,943)	(10,152)	(10,355)
EBITDA	-	3,875	5,285	5,418	5,526	5,642	5,766	5,887	6,011	6,137	6,260
EBITDA margin		*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*
Financial Depreciation		(832)	(832)	(832)	(847)	(878)	(910)	(942)	(975)	(1,009)	(1,043)
EBT	-	3,043	4,454	4,586	4,679	4,764	4,856	4,945	5,036	5,128	5,216
EBT margin		*8.4%*	*9.0%*	*9.1%*	*9.1%*	*9.0%*	*9.0%*	*9.0%*	*9.0%*	*8.9%*	*8.9%*
Corporate Income tax	-	-	-	-	-	-	(561)	(736)	(751)	(767)	(782)
Net Income	-	3,043	4,454	4,586	4,679	4,764	4,295	4,209	4,284	4,361	4,434
NI margin		*8.4%*	*9.0%*	*9.1%*	*9.1%*	*9.0%*	*8.0%*	*7.7%*	*7.6%*	*7.6%*	*7.6%*

Source: CapIQ, KPMG Analysis

Note: For our calculation purposes, we have not adjusted corporate income tax for the changes in deferred tax

Sales projections

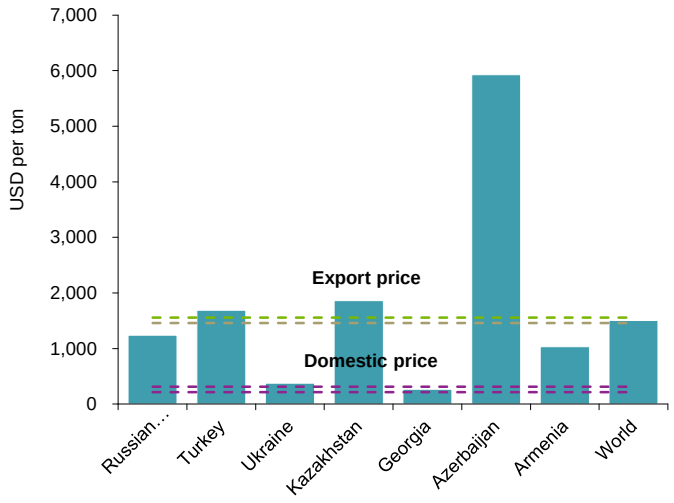
Sales volumes

Production of Glaziers putty, grafting putty, resin cements and painters fillings was projected to start in Year 2 at the level of 31,875 tons further increasing to 42,500 tons in Year 3. Sales volume on the domestic market was estimated to be 32% of total production, while remaining 68% is expected to be sold on export

Seles price

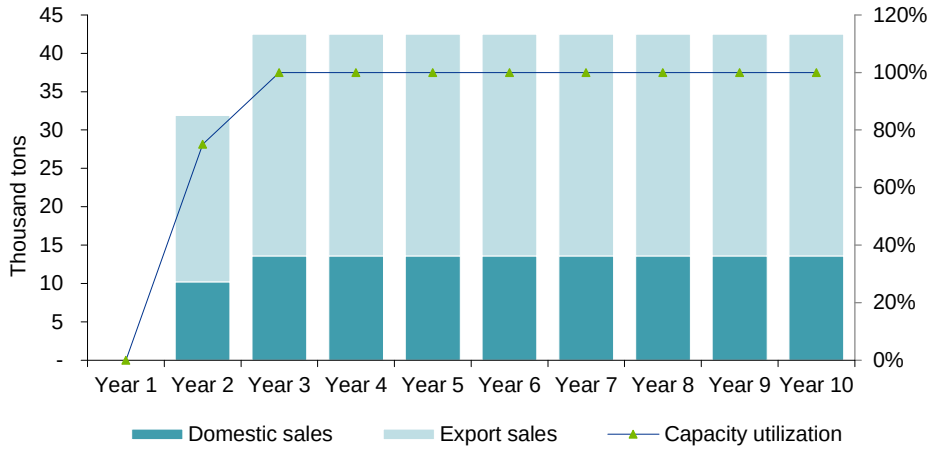
Average price per ton for the domestic market was estimated to be USD275 based on average import price for 2013 as provided by International Trade Centre (ITC), while export price was forecast based on average world import price per ton and amounted to USD1,507 per ton

Selling price



Source: ITC, KPMG Analysis

Sales volume



Source: ITC, KPMG Analysis

COGS and SG&A expenses

Cost of Goods Sold and Selling, General and Administrative expenses were forecast based on 2 year industry average Gross and SG&A margins of 28.4% and 17.7%, respectively

78% of COGS were accounted for raw materials and remaining 22% was split between Labor (8%), Energy (4%) and Overheads, taxes and other (10%)

COGS and SG&A

USD'000	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	TP
COGS	-	(25,929)	(35,368)	(36,252)	(36,977)	(37,753)	(38,584)	(39,394)	(40,221)	(41,066)	(41,887)
Raw materials	-	(20,225)	(27,587)	(28,276)	(28,842)	(29,448)	(30,095)	(30,727)	(31,373)	(32,032)	(32,672)
Labor	-	(2,074)	(2,829)	(2,900)	(2,958)	(3,020)	(3,087)	(3,152)	(3,218)	(3,285)	(3,351)
Energy	-	(1,037)	(1,415)	(1,450)	(1,479)	(1,510)	(1,543)	(1,576)	(1,609)	(1,643)	(1,675)
Overheads	-	(2,593)	(3,537)	(3,625)	(3,698)	(3,775)	(3,858)	(3,939)	(4,022)	(4,107)	(4,189)
SG&A expenses	-	(6,410)	(8,743)	(8,962)	(9,141)	(9,333)	(9,538)	(9,738)	(9,943)	(10,152)	(10,355)

Source: CapIQ, KPMG Analysis

NPV analysis

The NPV of the project is positive amounting to USD1,790 thousand

Discounted cash flow results												
USD'000		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**TP**
Total revenues		-	36,214	49,396	50,631	51,644	52,728	53,888	55,020	56,175	57,355	58,502
% of growth			-	*36.4%*	*2.5%*	*2.0%*	*2.1%*	*2.2%*	*2.1%*	*2.1%*	*2.1%*	*2.0%*
EBITDA		-	3,875	5,285	5,418	5,526	5,642	5,766	5,887	6,011	6,137	6,260
EBITDA margin			*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*
EBT		-	3,043	4,454	4,586	4,679	4,764	4,856	4,945	5,036	5,128	5,216
Income tax (adjusted)		-	-	-	-	-	-	(561)	(736)	(751)	(767)	(782)
NOPAT			3,043	4,454	4,586	4,679	4,764	4,295	4,209	4,284	4,361	4,434
Cash flow adjustments												
Depreciation & amortization (tax-basis)			832	832	832	847	878	910	942	975	1,009	1,043
CAPEX		(24,948)	-	-	-	(922)	(941)	(962)	(982)	(1,003)	(1,024)	(1,044)
Change in working capital		-	(3,621)	(1,318)	(123)	(101)	(108)	(116)	(113)	(116)	(118)	(115)
FCFF		(24,948)	253	3,967	5,294	4,503	4,592	4,127	4,056	4,141	4,228	4,319
WACC	*15%*											
Terminal growth rate	*2%*											
Terminal value												16,891
Discount period		1	2	3	4	5	6	7	8	9	10	10
Discount factor		1	1	1	1	1	0	0	0	0	0	0
Discounted FCFF		(23,264)	206	2,797	3,246	2,401	2,129	1,664	1,422	1,262	1,121	8,806
Sum of discounted cash flows	(7,016)											
Terminal value	8,806											
NPV	**1,790**											

Source: CapIQ, KPMG Analysis

Key profitability factors of the Project

Based on the high-level calculations the project is feasible

Key profitability factors of the project											
USD'000	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**TP**
Revenues	-	36,214	49,396	50,631	51,644	52,728	53,888	55,020	56,175	57,355	58,502
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EBITDA margin	-	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	*10.7%*	-
Net income margin	-	*8.4%*	*9.0%*	*9.1%*	*9.1%*	*9.0%*	*8.0%*	*7.7%*	*7.6%*	*7.6%*	*7.6%*
NPV of the Project	1,790										
IRR	*15.9%*										
Payback period	6.5										

Source: CapIQ, KPMG Analysis

Our assumptions and analysis have been performed based on the general economic and sector indicators. The detailed calculations for Georgia, including construction costs, labor costs, specific legal and environmental costs etc. have not been considered. However, the country specific taxation, as well as the CPI and the pricing data have been considered.

Per the general analysis, the results show that the project is feasible for the calculated optimal capacity and the relevant investment, as well as given costs assumptions. The NPV of the project is positive amounting to USD1,790 thousand, the IRR is high amounting to 15.9%. The payback period is estimated to be 6.5 years.

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cutting through complexity