

LIMESTONE AND DOLOMITE

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SUPPLY AND DEMAND

Limestone is a low-value bulk product and hence not traded widely internationally. Since world resources of limestone and dolomite suitable for lime manufacturing are adequate, most countries are able to meet their own input requirements. South Africa's production of limestone and dolomite increased in 2013 by 1.5 percent to 22 Mt compared with 2012. Local sales volume increased by 8.8 percent to 20.1 Mt, following signs of moderate recovery in the construction sector (Table 1).

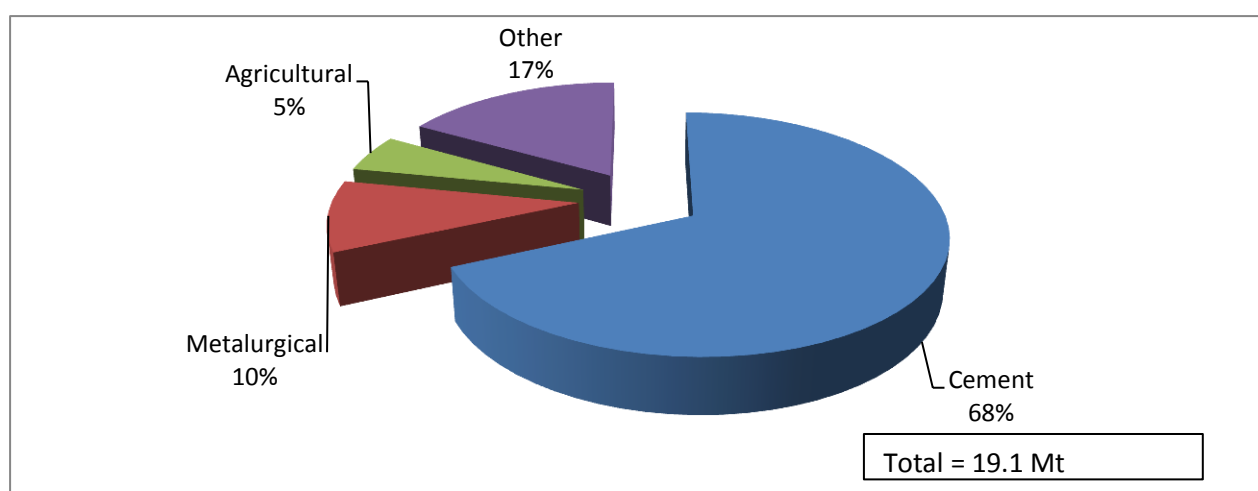
TABLE 1: SOUTH AFRICA'S PRODUCTION AND LOCAL SALES OF LIMESTONE AND DOLOMITE FOR NON-AGGREGATE USE, 2004 – 2013

YEAR	PRODUCTION	LOCAL SALES		
		Mass	Value (FOR)	
	Kt	kt	R'000	R/t
2004	22 031	17 466	1 227 322	70.3
2005	24 813	18 877	1 306 527	69.2
2006	27 366	20 359	1 517 661	75.0
2007	23 941	20 493	1 698 586	83.0
2008	23 495	19 781	1 899 279	96.0
2009	22 698	20 008	2 105 297	105.0
2010	22 480	19 226	2 271 133	118.0
2011	21 630	18 507	2 591 727	140.0
2012	21 637	18 479	2 517 772	136.0
2013	21 966	20 097	2 804 944	140.0

Source: DMR, Directorate Mineral Economics

Cement manufacturers are by far the largest users of limestone in the country at 68 percent followed by metallurgical applications (as a fluxing agent in steel making) at 10 percent and agriculture at 5 percent (Fig 1).

FIGURE 1: DEMAND FOR LIMESTONE BY SECTOR, 2013



Source: DMR, Directorate Mineral Economics

Local sales volume of limestone for the manufacture of cement increased by 5.5 percent to 13 Mt in 2013, even though, activity in the construction industry remained subdued (Table 2). Local sales volume for metallurgical grade carbonates increased by 8.6 percent to 1.9 Mt prompted by demand from the steel industry. However, local sales volumes of agricultural limestone and dolomite (aglime) decreased by 9.4 percent to 981 kt as a result of a decline in demand from fertiliser applications.

TABLE 2: SOUTH AFRICA'S LOCAL SALES OF LIMESTONE AND DOLOMITE BY APPLICATION, 2004 – 2013

YEAR	CEMENT				METALLURGICAL				AGRICULTURAL				OTHER			
	Mass		Value (FOR)		Mass		Value (FOR)		Mass		Value (FOR)		Mass		Value (FOR)	
	kt	R'000	R/t		kt	R'000	R/t		kt	R'000	R/t		kt	R'000	R/t	
2004	11 565	225 433	19		2 041	107 887	53		948	48 404	51		1 139	275 612	242	
2005	13 519	279 474	21		1 964	114 205	58		604	35 948	60		1 328	297 219	224	
2006	14 225	313 038	22		2 183	131 284	60		707	51 779	73		1 533	335 919	219	
2007	14 647	350 922	24		1 569	117 847	75		860	59 304	69		1 774	366 980	207	
2008	14 252	403 215	28		1 372	120 083	87		879	72 263	82		1 646	381 021	231	
2009	14 860	462 122	31		1 237	117 632	95		855	81 762	96		1 616	404 149	250	
2010	13 458	443 978	33		1 910	190 589	100		783	86 553	109		1 780	447 341	251	
2011	12 373	456 522	37		1 745	194 042	111		901	101 081	112		1 948	472 135	242	
2012	12 358	463 196	37		1 703	208 933	123		1 083	140 557	130		2 125	525 422	247	
2013	13 037	498 276	38		1 850	242 566	131		981	140 414	143		3 198	764 737	239	

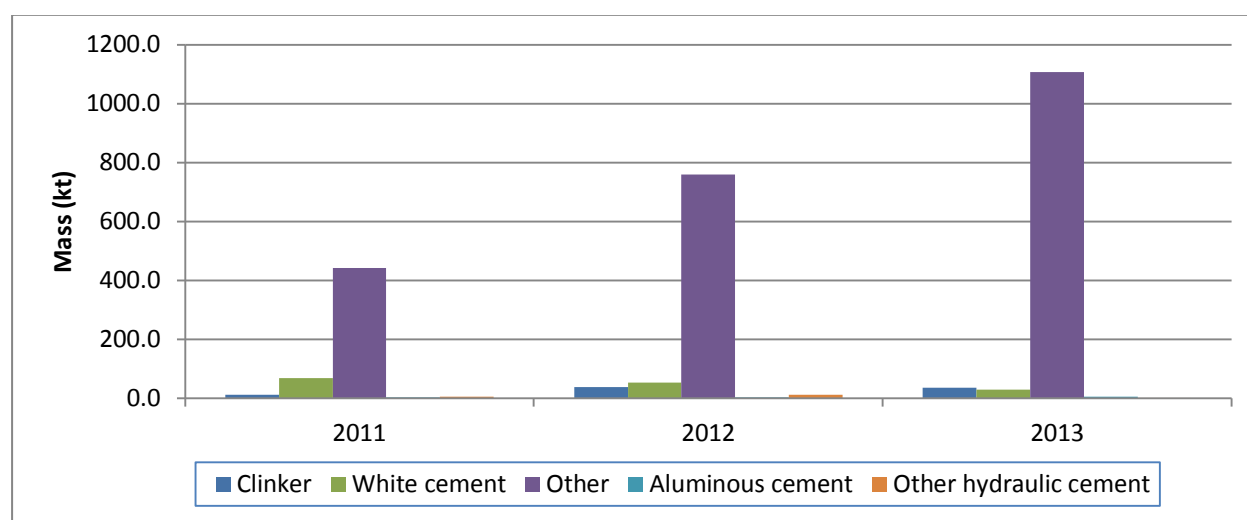
Source: DMR, Directorate Mineral Economics

Cement Imports

South Africa's imports of cement soared to 1 177 kt in 2013, a 35.6 percent rise compared with 868 kt in 2012 (Fig 2). The increase comes amid allegations of dumping of cement products from Pakistan into the

local market as a result of oversupply in that country. About 93.9 percent of all types of imported cement were from Pakistan in 2013, with a notable increase in other types of cement at 1 104 kt. The South African International Trade Administration Commission (ITAC) is conducting an investigation on the uncompetitive behaviour by Pakistan for selling cement products of a similar quality and standard in South Africa at a price 48 percent lower than the normal value in Pakistan. This practise has led to local producers feeling the squeeze in their sales volumes, profit, output and the market share.

FIGURE 2: SOUTH AFRICA'S IMPORTS OF CEMENT PRODUCTS, 2011 – 2013



Source: South African Revenue Service, 2013

Lime

A commercially important property of lime is its ability to form solutions with silicates. It is used in steel and ferro-alloys manufacturing, chemical industries and in environmental applications such as water purification. Local sales volume of lime (Table 3), slightly decreased by 1.8 percent to 1.19 Mt in 2013, compared with the previous year owing to low volumes of steel production. Sales volume of quicklime for pyrometallurgical and chemical applications dropped by 2 percent to 1.09 Mt, while sales value increased by 1.3 percent to R1.07 billion. The increase in sales value resulted from favourable prices in chemical applications, which improved by 5.9 percent to average R1 040/t in 2013. Hydrated lime sales volumes for water purification decreased by 0.4 percent to 50.7 kt whilst the sales volumes for chemical use decreased by 14 percent to 12 kt as demand for other substitute products improved.

TABLE 3: SOUTH AFRICA'S LOCAL SALES OF LIME, 2012 – 2013

LIME PRODUCT, BY SECTOR USE	2012			2013		
	Mass	Value (FOR)		Mass	Value (FOR)	
	Kt	R'000	R/t	Kt	R'000	R/t
Quicklime						
Pyrometallurgical	564	520 823	923	559	520 484	931
Chemical	549	539 307	982	532	553 033	1 040
SUB-TOTAL	1 113	1 060 130	953	1 091	1 073 517	984
Hydrated lime						
Water purification	50.9	61 701	1 213	50.7	62 728	1 238
Chemical	14	14 540	1 062	12	12 520	1 086
Other	32	43 294	1 373	37	40 555	1 097
SUB-TOTAL	97	119 535	1 216	100	115 803	1 158
TOTAL	1 210	1 179 665	975	1 188	1 188 734	1 001

Source: DMR, Directorate Mineral Economics

PRICES AND REVENUES

In 2013, there was a general increase in prices of limestone for different applications. Local unit values for limestone increased by 29 percent to R140/t, resulting in a 11.4 percent increase in revenue to R2.8 billion. The moderate recovery in the construction industry has seen demand for limestone used for cement manufacturing rising to 13 kt from 12.4 kt, a 4.8 percent increase with a corresponding 2.7 percent increase in the unit value. Furthermore, prices of limestone used in metallurgical and agricultural applications trended upwards, averaging R131/t and R143/t respectively. The unit value for metallurgical applications increased by 6.5 percent despite weaker demand from the steel industry, while the unit value for agricultural applications increased by 10 percent owing to increased demand for fertilisers.

EMPLOYMENT

Employment in the limestone and dolomite sector increased by 6.3 percent to 2 987 employees compared with 2012 (Table 4). Labour productivity decreased by 4.2 percent to 7.4 kt/employee, while revenue generated per employee increased by 5.1 percent to R941 256/employee. Average annual earnings increased by 0.9 percent to R157 264/employee due to faster increase in earnings than employment.

TABLE 4: SOUTH AFRICA'S LIMESTONE AND DOLOMITE QUARRIES: EMPLOYMENT AND REMUNERATION, 2004 – 2013

YEAR	EMPLOYEES	TOTAL REMUNERATION
		R'000
2004	4 085	242 043
2005	5 210	312 073
2006	2 385	251 895
2007	2 452	286 461
2008	2 517	321 698
2009	2 490	359 959
2010	2 635	410 250
2011	2 723	425 537
2012	2 811	438 208
2013	2 980	468 648

Source: DMR, Directorate Mineral Economics

RECENT DEVELOPMENTS IN THE CEMENT INDUSTRY

The Built Environment unit at the Council for Scientific and Industrial Research (CSIR) has developed a cost-competitive ultrathin concrete pavement surface, which is more durable than many other pavement alternatives. The ultrathin concrete will be used for upgrading unpaved roads with minimal amount of steel reinforcement, a move likely to lead to stronger demand for cement and ultimately limestone.

Sephaku Cement's construction of an integrated clinker and cement production plant (Aganang) in Lichtenburg and a milling plant in Delmas has been completed. The Aganang plant is expected to produce 1.9 Mt of clinker and 1.2 Mt of cement per annum. The Delmas plant will have an annual cement production capacity of 1.4 Mt. Sephaku Cement is expected to reach steady production at both plants in 2015 with ramp up of production volumes to be in line with market demand. These developments will drive South Africa's cement production to 14 Mt per year. Aganang will employ about 170 people at the cement factory and create an additional 300 employment opportunities through subcontractors.

Mamba Cement, a joint venture between Jidong Development Group, the China-Africa Development Fund and investment group Women Investment Portfolio Holdings (WIPHOLD) plans to build a R1.8 billion cement plant with a capacity of more than 1 Mt/annum in Limpopo province at an established limestone deposit. Jidong Development Group and China-Africa Development Fund will hold 51 percent of the shareholding, while WIPHOLD and an unidentified shareholder will account for the remaining balance of 23.9 percent and 25.1 percent respectively.

AfriSam's ready-mix cement plant in the Saldanha Bay industrial development zone (IDZ) became fully operational in June 2014. The facility would have a production capacity of 70 m³/hr and comprise storage

silos for cement and aggregates. The plant will provide ready-mix cement to the upcoming developments in the IDZ and the Saldanha Municipal area, which will create 10 000 jobs for locals during the initial development phase and 40 000 when the IDZ is fully operational.

Pretoria Portland Cement (PPC) has acquired the remaining 50 percent stake from Pronto Holdings, a Gauteng based ready-mix concrete and fly ash-supplier, for a total of \$41.9 million. Within the continent, PPC is expected to commission a 600 kt/a plant in Rwanda later in 2014 as part of its strategy to generate 40 percent of its revenues from the rest of the continent by 2017. Feasibility studies for a 2 Mt per annum plant in Algeria are in advanced stages and the company hopes to add Algeria to its \$1-billion African project portfolio. The main limitation currently on construction activity is the depressed private mining investment, which has led to subdued construction expenditure and has seen companies exploring opportunities outside of South Africa. However, government stimulus through infrastructure development programmes might offset the current market conditions.

OUTLOOK

The positive contribution to construction investment by government over the past three years cushioned the contraction of investment by SOE's and the private sector. During the same period, government spent R642 billion on infrastructure projects in a bid to unlock constraints in major strategic projects hindering economic growth. A further R847 billion is expected to be spent over the medium-term expenditure framework (MTEF) period, which will result in a stimulation of the local economy and a rise in demand for limestone and other construction minerals. The South African National Roads Agency Limited (Sanral), which is responsible for national road maintenance and upgrading, has been allocated R32.9 billion for national road improvements and R2 billion for the rehabilitation of coal haulage roads in Mpumalanga over the MTEF period. In addition, spending on road projects by provincial governments is expected to total R27.6 billion during the same period.

Civil construction activity is expected to pick up in future as 78 percent of the national road network is older than the original 20 year design life and will need rehabilitation, thus creating opportunities for construction companies. Furthermore, growth in approved residential plans by large municipalities signals a recovery in the sector. The entrants of new cement producers in the market and planned future operations will ensure sufficient supply for these developments. Cement prices are expected to be under some downward pressure in the long term due to increased competition as new plants come online.

The continued investment in road networks and social infrastructure will maintain a healthy demand for limestone and related minerals in the medium term. Similarly, the rise in demand for limestone will be driven by the agricultural sector on the back of growing population and flue-gas desulfurisation application at Eskom's power stations with Medupi and Kusile yet to be commissioned. Prices for limestone are therefore expected to continue increasing in correlation with rising demand from different applications.

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