



Andromeda Metals Limited ASX: ADN ASX Announcement

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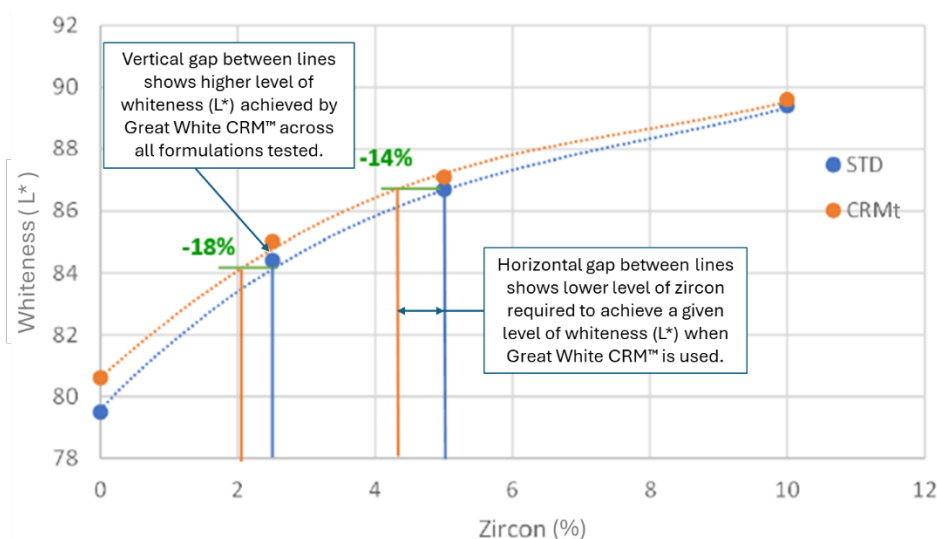
Report finds Great White CRM™ can displace up to 20% of zircon

Andromeda Metals Limited (ASX: **ADN**) (**Andromeda**, the **Company**) is pleased to advise that it has received the final report into the zircon-displacement potential of Great White CRM™, based on test work conducted by the Institute of Ceramic Technology (ITC)¹, located at the University of Castellan in Spain.

The final report confirms the high brightness of Great White CRM™ and measures its capacity to displace zircon used in ceramic tiles by up to 20%, when compared to a standard kaolin used commercially in the ceramics industry.

The conclusion of the ITC report stated: “The study carried out has allowed us to conclude that the use of Great White CRM kaolin in porcelain tile compositions increase their whiteness with respect to standard kaolins. The same improvement is observed when zircon is used, although the increase depends on the percentage of zircon. Therefore, the main conclusion of this study is that the use of Great White CRM kaolin in porcelain tile composition can reduce zircon content in percentages of up to 20% depending on the whiteness to be achieved and the mixture of raw materials used.”

Figure 1: Measured whiteness (L*) of ceramic formulations after firing at maximum densification temperature with varying percentages of zircon (and kaolin)



Bob Katsioularis, Andromeda's CEO and Managing Director, said: “These results are outstanding and represent a strong competitive advantage against other kaolins available in the market. The report supports the premium pricing achieved by Andromeda for Great White CRM™, through demonstrating the high value in use of using Great White CRM™ in porcelain tile formulations, by reducing the need for higher-priced zircon to achieve a required level of whiteness. This is particularly so given zircon prices have been consistently trading above US\$2,000 per tonne.”

¹ Instituto de Tecnología Cerámica (ITC).



Summary and excerpts from the ITC Report

The test work by ITC determined the whiteness of porcelain tile bodies achieved through using ceramic formulation mixtures with varying proportions of zircon (between 0% – 10%), and kaolin (between 22.5% – 25%), using either Great White CRM™ (**CRMt**) or the standard kaolin used commercially in the ceramics industry (**STD**).

Table 1: Formulations of the porcelain tile compositions used (wt%)

Composition	0%	2.5%	5%	10%
Mixture of clays and feldspars	75	73.1	71.3	67.5
Kaolin (STD or CRMt)	25	24.4	23.7	22.5
Zircon	0	2.5	5	10

Results were then compiled on various colour measurements, using chromatic coordinate determined in a diffuse reflectance spectrometer (Macbeth model Color-Eye 7000A) using a D65 type illuminant and standard observer at 10 degrees Celsius. The chromatic coordinates represent the sample colour on a three-dimensional scale, where each co-ordinate indicates a pair off colours as follows:

- L* where L*=0 represents black and L*=100 equates to white,
- a* where a*<0 represents green and a*>0 represents red, and
- b* where b*<0 represents blue and b*>0 represents yellow.

Table 2: Properties of porcelain tile compositions at maximum densification temperature

Kaolin	Zircon (%)	Tmax (°C)	Bulk density (g/cm³)	L*	a*	b*
STD	0	1181	2.444	79.5	2.4	8.0
	2.5	1181	2.472	84.4	1.7	6.5
	5	1184	2.503	86.7	1.3	5.7
	10	1193	2.565	89.4	0.7	4.8
CRMt	0	1186	2.454	80.6	1.8	7.1
	2.5	1186	2.481	85.0	1.4	5.9
	5	1190	2.508	87.1	1.1	5.2
	10	1198	2.570	89.6	0.5	4.4

These results extend the preliminary results from ITC's test work, which were recently presented by Andromeda's CEO, Bob Katsioularis at the ICerS Raw Materials for Ceramic Tile Conference in Italy², which supported a 10-18% reduction in zircon used in ceramics tiles through using Great White CRM™.

The results also build on earlier tests on Great White CRM™ conducted by IberoClays and value in use analysis³ supporting a reduction of up to 15% in zircon achieved by using Great White CRM™.

² Refer to ADN ASX dated 22 February 2024 titled *ICerS Raw Materials for Ceramic Tile Conference Presentation*.

³ Refer to ADN ASX dated 16 November 2023 titled *Investor Update – presentation*.



This announcement has been approved for release by the Board of Directors of Andromeda Metals Limited.

For more information about the Company and its projects, please visit our website, www.andromet.com.au or contact:

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