



ARCELORMITTAL DOFASCO HAMILTON, ONTARIO

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DESIGN AND CONSTRUCTION TEAM

OWNER: ArcelorMittal Dofasco

STEEL CLADDING SUPPLIER:
Agway Metals Inc.

STEEL CLADDING INSTALLER:
Lancaster Sheet Metal Ltd.

Tough Challenge, Tough Product Solano - A New Generation of Plastisol Paint Systems



Blast furnace casthouses are not thought of as particularly friendly places, especially if you happen to be a cladding panel. ArcelorMittal Dofasco's #4 Blast Furnace began life in 1971 and produces 4,600 net tons of hot metal a day. 'Hot metal' is a euphemism for liquid iron. The Casthouse plays a vital role. It encloses the bottom half of the blast furnace where the molten iron and slag are 'cast' and the less dense slag skimmed off. A critical link between iron ore and steel, and a challenging environment for a paint finish.

Enter Solano®, ArcelorMittal Dofasco's new organic coating for steel cladding and roofing. It was selected as the best paint system to use on the cladding for the #4 BF Casthouse roof ventilator and walls.

Solano is a non-phthalate, heavy metal-free (i.e. 'green') organic Plastisol paint finish. It is suitable for aggressive industrial applications where the cladding will be subject to harsh, corrosive environments. It performs measurably better than other plastisol paint systems currently available in North America.

Together with its protection against corrosive atmospheric and industrial exposure, Solano is scratch and abrasion resistant – a feature helpful in downstream processing and handling. It is applied to both AZM150 Galvalume and Z275 (G90) hot-dipped galvanize substrate. At the Casthouse it is applied to 1.22mm (0.048") thick Z275 (G90) at a coating thickness of 8 mil over 4 mil.

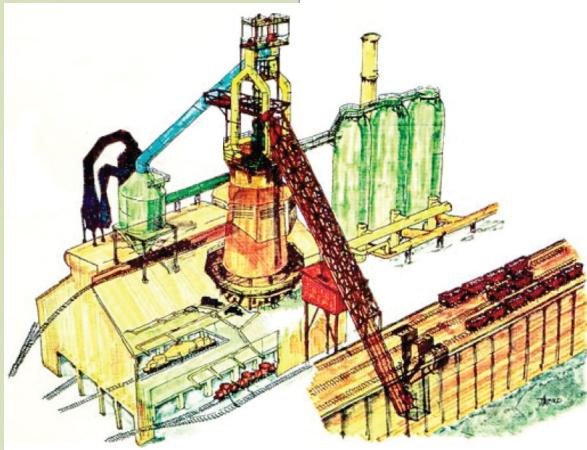
The Solano paint system offers a range of more than 20 colours. Tile Red was used at the Casthouse to clad the roof and sidewalls, as Solano is designed for both vertical and non-vertical applications. The

Casthouse is 38.4m long x 25.6m wide x 3.65m high (126' x 84' x 12'). A total of 311m² (3,360 sq. ft.) of Solano coated steel was used to clad the walls and another 164m² (1,765 sq. ft.) to clad the roof.

Completed at the end of June this year, the cladding was roll-formed and supplied by Agway Metals Inc. and installed by Lancaster Sheet Metal Ltd.

Kamran Derayeh, Projects Manager, at ArcelorMittal Dofasco was involved in the Casthouse project from the beginning and says, "It is fitting that our first Canadian project using Solano should be on our own facility. Apart from our natural bias, it does indicate our confidence in its ability to perform as required. The warranty on Solano's film integrity is 25 years. Add to that its ease of application – Solano-coated sheet steel can be installed using a range of normal joining techniques – and you have a paint system that I expect to enjoy significant demand and success."





Blast furnace configuration



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