

**Optimise pigment production
and feedstock grade in the
mineral sands value-chain**

BlendOpt



Paradyn

**Integrated
Value-chain
Optimisation**



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Simultaneous optimisation of process feed control strategies, stock inventories, and product portfolio using BlendOpt

Feedstock grade is a critical determinant of pigment production volumes. In the case of titanium feedstock, higher grade feed entering the plant results in more pigment produced and consequently less waste. Chloride pigment plants mostly use a blend of different feedstocks with different titanium dioxide grades. Indeed, most chloride pigment plants are orientated to higher grade feedstocks - plants are typically large and sophisticated, and operational efficiency is highly dependent on specifications of the feedstock blends.

Optimise plant feeds and reduce waste

BlendOpt can assist pigment production by designing optimised feed and processing schedules using Artificial Intelligence and collaborative mathematical optimisation that leverages the expertise of your decision makers, resulting in waste minimisation, reduced costs and improved margins, while keeping your blends within a desired range of control.

Forecast, plan and respond effectively to variation

Pigment plant capacity utilisation is closely correlated to industrial production and GDP trends - BlendOpt's integrated scheduling and forecasting/planning features can respond to variation and disruptions effectively allowing producers to make consistent high quality decisions with their plant operations.

The BlendOpt Solution

Paradyn's BlendOpt value-chain platform powered by Collaborative Mathematical Optimisation (CMO) can help you:

- Satisfy constraints in your value-chain
- Optimise for any objective including tonnage, revenue, and cost
- Optimise and integrate operational, tactical and strategic planning from minutes to years
- Improve collaboration and synchronisation between planning and operations
- Publish reports to relevant stakeholders
- Reconcile forecast with actuals
- Optimise reserving, processing, blending and logistical decisions
- Product portfolio optimisation
- 'What-If' scenario analysis



Read our articles to learn about Paradyn's innovative value-chain optimisation technology and how it can help your operation.