

Balmerol® Aquaroll 421 (BI) High Performance Semi Synthetic Cold Rolling Oil

Technical Data Sheet

Product Description:

Balmerol Aquaroll 421 (US) is tailor-made to suit the requirements of 4-Hi CR mills operating at moderate speed. It belongs to the family of high performance semi-synthetic stable emulsion forming cold rolling oils and is formulated with a synergistic blend of carefully selected synthetic esters, natural fats and special purpose additives to provide desired lubricity, load bearing ability and resistance to oxidation & microbial growth. The formulation package provides good gauge reduction characteristics with reduced number of passes, enhanced roll life, very good strip cleanliness through its inherent detergency and total burn-off characteristic. The greatly extended emulsion life and much reduced specific oil consumption through **controlled droplet size** and minimum scum generation, ensures direct saving to the user.

Features & Benefits:

Balmerol Aquaroll 421 (BI) provides the following benefits:

- Outstanding inherent load bearing ability compared to mineral base product
- Fortified with special purpose additive to provide desired lubricity
- Excellent gauge reduction characteristics
- Good strip cleanliness, provided by inherent detergency and good burn off characteristics of this oil results in improved quality of rolled steel
- Much reduced specific oil consumption also ensures direct savings to the user

Applications / Recommendations:

- For best performance, Balmerol Aquaroll 421 (BI) is recommended to be used at an emulsion strength of 2-4%. The emulsion should preferably be made with demineralised water having low chloride and sulphate content, although, the product can withstand the effect of electrolytes to a considerable extent.
- Facility for mechanical agitation of emulsion by stirrer, fully operational recirculation facility and electrical heating for maintaining the emulsion at 50-55 °C are required. These would ensure good emulsion health and rolling performance.

NOTE : Detailed guidelines regarding emulsion preparation, water quality and emulsion maintenance can be provided on request.

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Typical Properties:

| Balmerol Aquaroll 421 (BI) | |
|---|-------------------|
| Properties | Aquaroll 421 (BI) |
| Colour & Appearance | Dark Brown liquid |
| Specific Gravity @ 30°C | 0.90 - 0.92 |
| Acid Value, mg KOH/g, max | 10 |
| Saponification Value, mg KOH/g | 140 - 160 |
| pH, 5% emulsion in distilled water | 5.5 - 6.5 |
| E.S.I. of 5% emulsion in DM water @ 55° C | 0.75 - 0.85 |

Health and Safety:

Balmerol Aquaroll 421 (BI) is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. For MSDS please contact your local Balmer Lawrie Marketing / Technical Service team.

For Further Information, contact:

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