

Premier MagBase[®]

Fine Magnesium Oxide for Controlled Basification in the Chrome Tanning of Leather

- ◆ **COST EFFECTIVE**
 - ◆ **CONTROLLED PARTICLE SIZE - NO ABRASION**
 - ◆ **EVEN CHROME DISTRIBUTION AND HIGH UPTAKE**
 - ◆ **SAFE TO HANDLE**
 - ◆ **SUITABLE FOR ALL TYPES OF CHROME TANNED LEATHER**
 - ◆ **DOES NOT PRODUCE INSOLUBLE CALCIUM SALTS IN PELTS**
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Premier MagBase is a finely ground magnesium oxide powder with controlled particle size and guaranteed purity. It is sold in 25 Kg 3-ply paper sacks with polycoated liner.

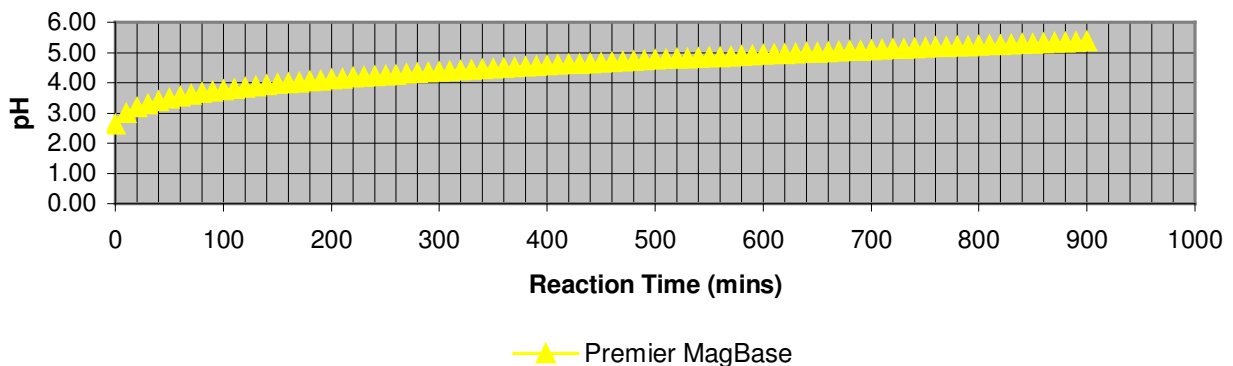
Premier MagBase has been specially developed for use in self basifying chrome tannages where it gives a gradual increase in pH value with time.

Premier MagBase®

MagBase has a tightly controlled fine particle size, which makes it an ideal alkali when a truly self-basifying agent is required.

MagBase offers the advantage of being a truly self-basifying agent added with, or shortly after, the chrome addition. As magnesium sulphate is soluble, unlike calcium sulphate, **MagBase** does not have the disadvantage of leaving high residual levels of calcium sulphate in the pelt. Its fine particle size minimises any abrasive (scuffing) effects sometimes encountered with coarser materials such as calcium carbonate, dolomite and crude types of magnesia.

Premier MagBase Chrome Tanning Activity pH v. Time



As shown in Fig 1 **MagBase** when added with the chrome, produces a gradual increase in pH, which is controlled by the percentage addition. This allows an even distribution of chrome onto the hide.

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YOUR QUESTIONS ANSWERED

How does Premier MagBase compare with Sodium Bicarbonate or Sodium Carbonate?

MagBase is easier and simpler to use than either sodium bicarbonate or sodium carbonate. It is added as a powder in a single shot near the start of tannage and gives a gradual and smooth increase in pH with time. Compared with sodium bicarbonate and sodium carbonate **MagBase** has the following advantages:

- less operator involvement
- less chance of errors in the number of additions
- no dilution of process liquors
- no sharp pH peaks therefore little risk of precipitating chrome hydroxide in the grain to give green stains.

How does Premier MagBase compare with Dolomite or Calcium Carbonate?

When using dolomite and calcium carbonate in the tanning process, calcium sulphate is formed which may precipitate on the grain making level dyeing and accurate colour matching difficult. **MagBase** eliminates these colour problems since it reacts to yield only the soluble salt, magnesium sulphate.

Because of the way they are produced, both dolomite and calcium carbonate tend to contain sharp, uneven and gritty particles, which cause scuffing. Damage can also result from sand and other impurities forming an insoluble sludge during tanning. With its closely controlled, particle size **MagBase** prevents abrasion of the grain and since it is a high purity product has no particulate impurities.

Dolomite and calcium carbonate products usually contain dust particles, which react very quickly after addition to give an initial pH peak. With these high pH values there is a danger of chrome on the surface and can result in a 'tender' grain, which easily cracks in the finished leather goods. Since **MagBase** reacts in a controlled way giving no pH peaks both these problems are avoided.

How does Premier MagBase compare with other types of Magnesia?

Most other types of magnesium oxide are produced by calcining and grinding natural rock magnesite. These products contain the dust and sharp grits normally associated with rock-based products. The dust gives a high initial pH and the grits can scuff the leather. Some 'natural' magnesium oxide contains so much impurity - quartz, clay, uncalcined stone etc. - that the MgO content of the product may be as low as 80%.

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SUMMARY

1. **Premier MagBase** is synthetic magnesia precipitated from seawater. It has closely controlled chemical and physical properties and gives none of the problems associated with 'natural' magnesias. Its MgO content is 96% minimum.
2. **MagBase** gives more consistency in dyeing which may be attributable to the absence of CaSO₄. The presence of CaSO₄ in the pelt can have a detrimental effect on the dyeing of leather.
3. Possible errors involved in the use of a multi or continuous alkali addition system are overcome with the use of **MagBase**. The one shot system also offers reduced labour/handling requirement in the production process, and **MagBase can** offer a financial advantage over some basifying agents.
4. Abrasion or scuffing problems encountered with some basification agents are minimised with **MagBase** due to its fine particle size.
5. The consistent chemical and physical properties of the magnesium oxide product, **MagBase** ensures reliable performance in the chrome tanning of all types of leather.
6. On an alkali equivalent and cost basis, **MagBase**, compares favourably with other widely used alkalis. Alkali equivalent weights are:

0.4% (**MagBase**) \equiv 1.6% NaHCO₃ \equiv 1.0% Na₂CO₃ \equiv 1.0% CaCO₃

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Premier MagBase[®]

Ground Magnesium Oxide Powder

Product Description

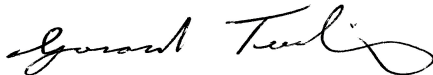
A finely ground Magnesium Oxide powder with controlled particle size, and guaranteed purity. The product is suitable for a wide range of applications including refractory, mineral cable, leather tanning and other uses.

Typical Analysis (Wt.%)

MgO	97.2	(min. 96.0%)
SiO₂	0.25	
Al₂O₃	0.07	
Fe₂O₃	0.20	
CaO	2.10	
Cr₂O₃	0.08	
Mn₃O₄	0.09	
B₂O₃	0.02	

Sizing

+350µm	0
+250µm	0.2



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