

Protective Chemical PM-4701

INTRODUCTION

Properties: PM-4701 is a water miscible fluorochemical compound designed to impart excellent and durable water, oil and stain repellent properties on all types of vulnerable leathers for garments, shoe uppers and upholstery. PM-4701 can also impart resistance to salt staining, acid and alkali protection. PM-4701 can also increase the wet-rub fastness of vulnerable leathers. PM-4701 can be added to finishing formulations to increase the oil and water resistance of lightly finished leathers. The treatment is colorless and odorless, and if properly applied has minimal to no influence on the natural feel and look of the leathers. The breathability of the leathers is not affected by the application of this product.

Use: The product is designed to apply it during the aqueous finishing operation in the manufacturing process. The product can be applied with traditional spray or roll coating equipment.

Branding: Only if the leather treatment meets stringent quality performance specifications are you entitled to make use of the Scotchgard™ Brand name provided you are an official licensee of 3M.

Environmental: PM-4701 does not contain alkyl phenol ethoxylate (APE) surfactants, and is not based on PFOA or PFOS chemistry. It is not made with and does not degrade to PFOA or PFOS. The active ingredient of PM-4701 is not a chlorofluorocarbon (CFC), associated with ozone depletion.

TYPICAL PROPERTIES

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| Appearance | Off-white Emulsion, the product can contain a slight amount of sediment |
| Typical Analysis | 20% Solids 71% Water 7% Propyleneglycol 2% Emulsifier < 1% Triethanolamine |
| Charge | Anionic |
| Density | Approx. 1 kg/litre |
| pH | 5 - 7 |
| Shipping & Storage | Non-Red Label Flash point: Setaflash Closed Cup >95°C (>210°F) Boiling point: >100°C (>212°F) PM-4701 should not be stored at temperatures >40°C (>104°F). PM-4700 is freeze/thaw stable to -23°C (-10°F). |

If exposed to freezing temperatures, return slowly to room temperatures before using; avoid agitation during thawing process.

Shelf life 2 year from date of manufacture

APPLICATION PROPERTIES

- PM-4701 is miscible with water in all ratios.
 - PM-4701 can be diluted with hard water of maximum 35 German degrees hardness.
 - PM-4701 is compatible with a wide range of waterborne binders, resins, pigments, cross-linkers, softeners and waterborne lacquer emulsions.
 - PM-4701 can be added to many coating formulations.
 - PM-4701 can be mixed into all coating layers, from base coating to top coating.
 - The coatings need to be applied the same day without ironing to obtain good adhesion of the different layers.
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TYPICAL APPLICATION

1. Industrial Spray

It is necessary to dilute PM-4701 with water prior to use. In a spray application, any equipment capable of delivering a wet spray to the leather surface is satisfactory. Spray equipment must be equipped with local exhaust ventilation. Apply a uniform wet coating to ensure an even distribution of chemical. Spray two crosses with a total consumption of approximately 10–12g diluted PM-4701 per sq. ft.

Suggested dilution (by weight):

75–300g PM-4701
925–700g Water
(or 1.5 to 6 % solids solution).

Some co-solvents may be used to improve wetting of the sprayed blend (e.g. ethyleneglycol and methoxypropanol).

Contact 3M Technical Service for a specific application.

2. Industrial Roller Coater

It is necessary to dilute PM-4701 prior to use. The optimum dilution depends on the absorbency of the leather and the viscosity of the mixture.

Suggested formula (by weight):

350–500g PM-4701
650–500g Water

DRY AND CURE CONDITIONS

In general, the normal tannery procedures are adequate. In order to develop the maximum performance, the leathers should be properly dried in an oven of a minimum 50°C (120°F).

APPLICATION

3. Aerosol Container Systems

PM-4701 should not be used for aerosol container applications.

ENVIRONMENTAL, HEALTH & SAFETY

Normal care should be taken to avoid skin contact, eye contact and prolonged breathing of vapors or dusts. Hands should be washed prior to smoking or eating. Before using this product, please read the current PM-4701 Material Safety Data Sheet (available through your local representative), and the precautionary statement on the product package. Follow all applicable directions.

Appropriate precautionary measures should be taken when handling and working with solvents (follow supplier's directions).

PM-4701 should not be used in aerosol applications.

Important Notice to Purchaser:

The information in this publication is based on the tests we believe are reliable. Your results may vary due to differences in test type and conditions. You must evaluate and determine whether the product is suitable for your intended application. Since conditions of product use are outside of our control and vary widely, the following is made in lieu of all express or implied warranties (including the warranties of merchantability or fitness for a particular purpose). Except where prohibited by law, 3M's only obligation and only remedy, is replacement or, at 3M's option, refund of the original purchase price of the product that is shown to have been defective when you received it. In no case will 3M be liable for any direct, indirect, special, incidental, or consequential damages (including, without limitation, lost profits, goodwill, and business opportunity) based on breach of warranty, condition or contract, negligence, strict tort, or any other legal or equitable theory.



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