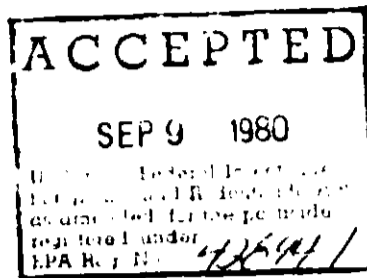




Dyes and Chemicals



Intracide® M

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FINISHING AGENT

Moth-Proofing Agent for Wool and Wool Blends

Intracide M is a durable moth-proofing finishing agent which protects wool and wool blends from keratin-eating insects such as moth grubs and carpet beetle larvae. This agent may be used in a separate pretreatment operation, combined in a dyeing operation, or applied as an aftertreatment. It exhausts onto wool similar to a weakly acid dye. Intracide M is effective on all types of wool fibers, and has affinity for silk, regenerated protein fibers and polyamide.

- Durable to light, washing, dry cleaning.
- Compatible with chemicals normally used in dyeing and finishing of wool.
- No effect on physical or chemical properties of wool.
- No effect on hand, dye shade or odor of fabric.
- Treatment durable under all climactic conditions.

GENERAL PROPERTIES

Physical form odorless, white powder
 Ionic nature anionic
 Solubility readily soluble in boiling water with stirring
 pH (1 g/l solution) neutral
 Storage stability can be stored indefinitely in a cool dry place in closed container

Intracide M is compatible with most chemicals used in the dyeing and finishing of wool. Its solubility, however, is decreased by electrolytes. For hard water conditions, the use of polyphosphates or sequestering agents such as Intraquest TP or Intraquest TA Solution is recommended. If using an anionic agent with a strong retarding action at concentrations up to 0.5 g/l, an increase in the concentration of Intracide M may be necessary.

Intracide M is not compatible with cationic agents.

Non-ionic agents: When applying Intracide M or when Intracide-treated goods are being dyed at the boil, only very low concentrations of non-ionic scouring and wetting agents or dyeing assistants should be used. Mothproofing during a dyeing operation with non-ionic agents should be done only under acid conditions.

Wool pretreated with non-ionic agents should be thoroughly rinsed before applying Intracide M. If non-ionic agents are used in a subsequent scouring of Intracide-treated goods, temperatures should not exceed 120°F and the wool should be thoroughly rinsed afterwards. Non-ionic agents should be avoided when milling wool goods treated with Intracide M.

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CAUTION: Dyes and chemicals may cause irritation if allowed to come in contact with the skin. The use of gloves and protective goggles is recommended when handling these products, as with any other dye or chemical.

Preparation

Clear solutions of Intracide M are obtained by sprinkling the required amount in 40-50 times its weight of gently boiling water, with constant stirring. Do not boil more than two minutes after the Intracide is dissolved. The solution is diluted further with 5-10 times its weight of cold water to form a suspension before adding to the treatment bath. Addition to the bath is made prior to that of chemicals or dyes.

APPLICATION

Intracide M has affinity for wool, silk, regenerated protein and polyamide fibers. It has no affinity for basic dyeable acrylic fibers, polyester or cellulosic fibers. Intracide exhausts onto wool in an acid medium.

When Intracide M is applied as a separate treatment, starting temperature should not exceed 100°F. Maximum starting temperature for chlorinated wool should not be above 70-80°F; this temperature is then raised slowly and regularly to assure uniform exhaustion.

Full exhaustion is obtained within 30 minutes at temperatures above 120°F. Rate of exhaustion increases with a rise in temperature or as the pH is reduced.

For sufficient fixation of Intracide M, treatment temperatures below 120°F are not recommended. Goods treated above 140°F will withstand normal wet and dry finishing processes. Treatment near the boil exhibits a fastness equal to that of good milling dyes. To assure level, uniform distribution of Intracide M, the precautions used in dyeing operations should be observed.

Wool, general recommendation

- 1.0 - 2.0% Intracide M
- pH below 6.5
- treat 30 minutes at 140-220°F

With the exception of cashmere, 1.0% Intracide M is sufficient for treating wool if protection against fur beetle larvae is not required. Higher concentrations are necessary if wool is to be subjected to severe milling, if retarding agents are to be used, or if wool has been chlorinated or affected by bleaching or other treatments. The concentration and method of applying Intracide M on wool blends depends on the affinity of the agent for the blend fiber.

Dyebath application

General recommendation:

	Wool/polyamide (pale to medium shades, polyamide portion not to exceed 25%)	Wool/cellulosic fibers and wool/synthetic fibers (except polyamide)
Wool/silk		
1.0-2.0% Intracide M on total weight of blend	1.1-2.0% Intracide M on total weight of blend	1.1-1.5% Intracide M on weight of wool

pH below 6.5

Temperature: 140 F and above according to dyeing method.

Procedure:

Prepare the dyebath at 90-100 F

Add Intracide suspension.

Run 5 minutes.

Add 2% acetic, formic or sulfuric acid necessary dyes, salt or additional acid.

Run 5 minutes and raise slowly to dyeing temperature.

Proceed as usual with the dyeing.

Temperatures of 160-212 F are sufficient to exhaust and fix Intracide M on the wool fiber. Best fixation, however, is obtained near the boil. For application conditions not indicated above, specific directions should be requested from Crompton & Knowles.

Aftertreatment

Wool/silk and wool/regenerated protein fibers	Wool/polyamide	Wool/cellulosic fibers and wool/synthetic fibers (except polyamide)
1.0-2.0% Intracide M (on total weight of blend)	1.1-2.0% Intracide M (on total weight of blend)	1.1-1.5% Intracide M (on weight of wool)

pH 4-5

Temperature: 140-195°F

Procedure:

Add Intracide M to the bath (90-100°F).

Treat goods 5 minutes.

Add 2% formic acid 85% or 3% acetic acid 56%.

Raise temperature to 140-195°F.

Treat goods for 30 minutes at the desired temperature.

Cool and finish goods in normal way.

Aftertreatment — Dolly Washer

Intracide M can be applied in a dolly washer equipped with a steam coil in the shallow soapbox directly under the rolls in the washer.

Using a concentration of Intracide M and chemicals specified above, heat treatment liquor to a temperature of 160-180°F. Treat goods at elevated temperature for a minimum of 30 minutes. The time and high temperature used for mothproofing in a dolly washer may require some adjustment in the conditions and time for a fulling operation.

FASTNESS PROPERTIES (1.0% Intracide M applied at the boil)

Light:	Intracide treatment on wool is not affected by light, does not cause yellowing of the wool and has no effect on the lightfastness of dyes.
Washing:	Withstands repeated household washes with mild detergents.
Milling:	Not impaired by normal milling.
Hot pressing:	Not affected by repeated wet or dry hot pressing.
Carbonizing:	Not impaired by carbonizing with sulfuric acid.
Sea water:	Not affected by sea water.
Finishing:	Not impaired by standard wet and dry finishing processes, such as crabbing, decatizing and hot pressing.
Chlorination:	Withstands normal alkaline or acid hypochlorite treatment.
Stoving:	Not impaired by sulfur stoving.
Perspiration:	Withstands acid and alkaline perspiration.
Dry cleaning:	Not impaired by repeated dry cleaning.