



THE WOOLMARK COMPANY

WOOLMARK SPECIFICATION

PRODUCTS FOR THE INSECT
RESIST TREATMENT OF WOOL

SPECIFICATION CP-4

Effective 1 January 2016

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SPECIFICATION CP-4: 2016

PRODUCTS FOR THE INSECT RESIST TREATMENT OF WOOL

For those wool products for which an insect resist treatment is mandatory

This Specification details, for various Insect Resist Agents (IRA), the quantity that must be present on a wool product (as active on the weight of wool) for that wool product to bear the Woolmark/Woolmark Blend label. Measurement of the IR agent is done after cleaning and lightfastness testing, as specified in Woolmark TWC-TM28: Insect resist agent – fastness testing.

For those wool products for which an insect resist treatment is not mandatory

Where the product carries an 'Insect resistant' claim, the amount of Insect Resist Agent on the wool must be measured and must also meet the limits detailed in this Specification. For bedding and apparel, measurement of the concentration of the IR agent shall be made after the fastness test defined in TWC-TM28 for the appropriate care claim (washable or dry clean only).

A product shall be accepted as complying with Specification CP-4 if the product fulfils the conditions described in the Table below.

	Minimum Concentration after Fastness Testing as active (ppm or mg/kg)				
	Level 1	Level 2	Level 3	Level 4	Level 5
Permethrin	35	35	75	181	181
Bifenthrin				6.6	6.6
Chlorofenapyr	47	47	54	70	70
Sulcofuron	3175	3175	3175	3175	3175
Fibronil	4	4	4	4	4

The methods used to measure the insecticide on the wool are described in Woolmark TWC-TM27: Chemical assay of insect resist (IR) agent content.

Products treated with a combination of the above IR agents must be referred to the Woolmark Management Group. New active materials or IR products must undergo biological and fastness testing and will be reviewed by the Woolmark Management Group before acceptance.

APPLICATION

LEVEL 1	See appropriate product specification sheet for mandatory or advisory status of requirement. Signifies resistant to <i>Tineola bisselliella</i> (Hummel).
LEVEL 2	Advisory for most products sold in moist, temperate climates. Signifies resistant to <i>Tineola bisselliella</i> (Hummel).
LEVEL 3	Mandatory for products sold in South Africa. Advisory for products sold in warmer, drier climates, such as Central and Southern Europe, USA and Japan. Signifies resistant to <i>Tineola bisselliella</i> (Hummel) and <i>Anthrenus flavipes</i> (Le Conte).
LEVEL 4	Mandatory for products sold in Australia. Signifies resistant to <i>Tineola bisselliella</i> (Hummel), <i>Tinea pellionella</i> (L.), <i>Tinea translucens</i> (Meyrick), <i>Anthrenocerus australis</i> (Hope) and <i>Anthrenus flavipes</i> (Le Conte).
LEVEL 5	Mandatory for products sold in New Zealand. Advisory for products sold in a variety of climates. Signifies resistant to <i>Tineola bisselliella</i> (Hummel), <i>Tinea pellionella</i> (L.), <i>Tinea translucens</i> (Meyrick), <i>Anthrenocerus australis</i> (Hope), <i>Anthrenus flavipes</i> (Le Conte), <i>Attagenus pellio</i> (L.), <i>Attagenus piceus</i> (Oliv.) and <i>Hofmannophila pseudospretella</i> (Stainton).

TECHNICAL NOTES

1. Level 1 is the basic requirement by MANDATORY or ADVISORY status but due consideration should be given to applying IR agents to higher levels where this is advised for regions with specific climatic conditions.
2. In specified countries, the application of IR agent to higher levels is MANDATORY.
3. For rugs and squares, insect resist treatment is an ADVISORY requirement (LEVEL 1) unless there are national MANDATORY requirements. For products sold in Australia (LEVEL 4), South Africa (LEVEL 3), New Zealand (LEVEL 5) must be applied.
4. The rates given in the following table are the minimum effective rate; higher levels are required on products as manufactured.
5. Products may also be tested by bioassay according to Woolmark TWC-TM25 after fastness testing according to Woolmark TWC-TM28.

ADVISORY

Levels of insect resist products on the wool after fastness testing that correspond to the specified concentration of active material % w/w.

The following table indicates the minimum concentration of commercial insect resist formulations that must be present on the wool to comply with this Specification (CP-4). These are advisory and are based on the information received from the manufacturers about the % active material in the formulation. The Woolmark Company is not responsible for quality assurance of these formulations or changes in their concentration of active material.

Insect resist agent	Producer	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
Antitarma NTC	Dalton S.p.A.	0.050	0.050	0.107	0.259	0.259
Antitarma NTC/60		0.084	0.084	0.179	0.433	0.433
Bematin 988	Bezema AG	0.029	0.029	0.063	0.150	0.150
Berlintarm	BBC S.r.L.	0.043	0.043	0.092	0.223	0.223
Edolan ETS	Lanxess Corp	0.029	0.029	0.062	0.150	0.150
Eulan SPN	Tanatex Chemicals (Netherlands)	0.035	0.035	0.075	0.181	0.181
Eulan SPA – 01		0.035	0.035	0.075	0.181	0.181
Fermentol 2000 (10%)	Datt Chimica	0.035	0.035	0.075	0.181	0.181
Fermentol 2000 (12%)		0.029	0.029	0.063	0.150	0.150
Insecta EC12	Devan-PPT	0.029	0.029	0.063	0.150	0.150
JF-86	Jiangsu Kaixing Plastic Chemical Co. Ltd	0.060	0.060	0.129	0.312	0.312
Konservan P10	Thor Specialties Pty Ltd	0.035	0.035	0.075	0.181	0.181
Lanacare DBC	Shamrock Group Ltd	–	–	–	0.132	0.132
Lanacare DBCS		–	–	–	0.110	0.110
Lanacare DBC1.5		–	–	–	0.088	0.088
Lanacare FPL		0.067	0.067	0.067	0.067	0.067
Larvanil SB5	Melbourne Aniline & Lye	–	–	–	0.132	0.132
Lixawin MIP	Yogeshwar Chemicals Ltd	0.035	0.035	0.075	0.181	0.181
Meythrin A	Oxford Technologies	0.035	0.035	0.075	0.181	0.181
Molantin SP	Spolchemie	0.035	0.035	0.075	0.181	0.181
Mystox CMP	Catomance	0.029	0.029	0.063	0.150	0.150
Mystox MP		0.117	0.117	0.136	0.175	0.175
NearMust MP	Near Chimica Spa	0.035	0.035	0.075	0.181	0.181
Nymcide TE	Nymco	0.035	0.035	0.075	0.181	0.181
Perigen New	Stephenson Group Ltd	0.029	0.029	0.062	0.150	0.150
Pythrin WB	RCA International	0.034	0.034	0.073	0.176	0.176
Synthecol BMP	Chemcolour NZ				0.0055	0.0055

MINIMUM PRODUCT CONCENTRATION:

Required Minimum percentage (Weight/weight) of Insect Resist Agent (AS % PRODUCT) on the Wool following Fastness testing according to Woolmark TM28.

NOTES

- 1 It is the responsibility of the user of any insect-resist agent to ensure that the IRA (and its active material) is registered for use in the country in which the wool product is sold. The Woolmark Company is not liable for the use of one or more of the listed products if they are not registered for use in a particular jurisdiction.
- 2 The Woolmark Company's inclusion of an IR agent in CP-4 in no way implies that industrial use of these formulations will meet the requirements of various local and national authorities in terms of effluent consents, etc. These are local issues that must be resolved from trials carried out by the manufacturer of the agent and the mills using the product.
- 3 Application levels of IRAs and the initial concentration required on wool products **prior** to fastness testing to meet Woolmark limits are determined by the nature of the product and the method of application. It is the responsibility of the wool processor to ascertain, from the supplier of the IRA, the application levels required to meet Woolmark requirements. Advisory information is also available from the regional office of The Woolmark Company.
- 4 The Woolmark Company reserves the right to test listed products by bioassay to confirm their effectiveness.
5. The Woolmark Company reserves the right to reject IRAs for ecological or environmental reasons.

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THE WOOLMARK COMPANY

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