TERAMAX
COMPOSTABLE AG FILMS

Teramax agricultural mulch film has been scientifically developed to ensure a fully compostable product that leaves zero chemical residue and no environmental impact.

Using our innovative technology, Teramax compostable mulch film gradually breaks down naturally via UV rays, moisture, pH in soil and enzymes.

Teramax custom manufactures certified biodegradable film rolls to the size and thickness required, tailored to region, climate, soil type and crop rotations to optimise early growth.

Teramax compostable mulch film eliminates plastic waste entirely from the mulch film operation. There is zero risk of plastic particles remaining and building up in the soil profile or leaching into our waterways.

Film three weeks after laying and two weeks after planting.

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Film 14 weeks after laying.

Planting under Teramax film can optimize early growth to increase crop yields by:

- providing an earlier start to sowing and earlier germination
- storing soil moisture
- increasing soil temperature
- preventing evaporation
- weed suppression
- reducing water usage
- reducing soil compaction

Post discing. 18 weeks after film was laid.

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Teramax compostable ag film is a made in several different thicknesses and types. We work directly with the grower to assess their needs and determine if our product is the right fit. This will include the choosing the most appropriate film thickness and estimating the approximate rate of compostability. So, while the rate of degradation can be adjusted, it is not an exact time frame due the variability of these factors.

It is important to note that the rate of degradation can be affected by many different factors including:

- **Soil moisture**
- **Soil microbes**
- **Exposure to ultraviolet (UV) light.**
- **Plant coverage**
- **Film laying methodology**
- **Temperature**

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What Teramax Compostable Film does and does not do.

COMPOSTABILITY

Teramax Compostable films will break down under natural conditions on-farm. This process of compostability however is variable and **composting times will vary according to on-farm conditions.** These conditions include:

- Temperature
- UV light intensity
- Aspect
- Soil type
- Rainfall and soil moisture
- Geographic location
- Plant cover

COMPOSTING TIME

The time it takes for Teramax Compostable films to break down is inherently variable, and **we give no guarantee on any exact time frames.** We rely on our knowledge of film performance in similar conditions when giving recommendations to growers. Even then, compostable film break down time can vary depending on weather conditions and other variables. **Growers should test Teramax film on a percentage of crop in the first season to get a sense for how it performs under their conditions, before committing to large areas.**

It is critical that growers understand that a film which is expected to last "120 days" does not disappear instantly on Day 120. Rather this is a guide to a point when the film can be expected to have lost elasticity and be breaking down into fragments. This may occur slightly earlier or slightly later depending on the season and local conditions.

Generally we will recommend film that is expected to last longer, rather than shorter, on the basis that this is less likely to affect crop growth and yield.

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What Teramax Compostable Film does and does not do.

CHEMICAL USE

Teramax Compostable films are tested across a range of crops and are not affected by most common chemicals in use in farming today, including Metham. We have not yet experienced any degradation from chemical use but we make no guarantees that Teramax films are resistant to all agricultural chemicals, and growers use all herbicides, insecticides and fumigants at their own risk, acknowledging that Teramax film may or may not be resistant to certain chemicals, sprays and fumigants that they use.

APPLICATION AND LAYING

Teramax Compostable films will lay in a very similar way to plastic mulch, using the same equipment. However, Teramax compostable films are generally thinner than plastic mulch and may require reduced tension settings compared to laying plastic. We do not acknowledge product breakage claims where growers lay film under excessive tension in order to gain greater coverage with less film.

RESIDUE

Teramax Compostable films are certified compostable by TUV Austria, and carry the “OK Home Compostable” mark. This certifies that the products break down into natural substances and leave no residue in the soil. It is however natural in many cases that some fragments of compostable film are left after the film is disced in at the end of the season. These fragments will gradually degrade and disappear under the action of soil microbes and UV light. This is part of the natural variability of compostable film.

QUESTIONS AND ENQUIRIES:

Tony Dyne, National Sales Manager. 0474 832774 tony@teramax.com.au

Andrew Logan, Managing Director. 0403 221419 andrew@teramax.com.au

www.teramax.com.au

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Typical Properties of Teramax Compostable Mulch Film

CERTIFICATE FOR AWARDING AND USE OF THE 'OK COMPOST HOME' CONFORMITY MARK TA8022004399,
Issued by T0V AUSTRIA CERT GMBH.

Validity - From 12 May 2020 to 12 May 2025 - renewal pending.
Conclusions of the examination - The products comply with the above mentioned certification criteria, as confirmed by the report 65002359 I 2019-AG-1279p.
Applicable certification system: - Type examination followed by supervision through verification tests on samples from the distributor's stocks or of the market.
The conformity of the product is guaranteed by the procedures for awarding and use of the 'OK compost HOME' conformity mark. This only applies to specimens bearing the 'OK compost HOME' mark.

PHYSICAL PROPERTIES

Density - 0.033 lb/in^3; 0.92 g/cm^3
Average weight per 100m @15um 3.0kg / Average weight per 100m @20um 3.8kg

MECHANICAL PROPERTIES

Tensile Strength (psi) at 72°F - 1400
Tensile Strength (psi) at 150°F - 400
Tensile Modulus (psi) 57,000
Tensile Elongation at Break (%) 100
Flexural Strength at Yield (psi) 1,500
Flexural Modulus (psi) 29,000
Compressive Strength (psi) 1,400
Compressive Modulus (psi) 54,000
Hardness, Shore D - D45
IZOD Notched Impact (c-lb/in) - No Break

HMIS Hazard IdentificaKon of Active Ingredients

Degree of Hazard - 0 = Least, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme
Hazard Rating
Health = 0
Fire = 1
Reactivity = 0

Other:

Molecular Weight: N/K
Material Use: Plastic Manufacturing
Conditions of Instability: Stable

Independent Environmental Testing

OECD207 - Earthworm, Acute Toxicity Tests - Pass
OECD208 - Guideline for Testing Chemicals (2006), Terrestrial Plant Test: Seedling, Emergence and Seedling Growth Test - Pass

Storage & Handling ProtecKve Equipment - Gloves, Standard working clothing. **Handling:** Standard lifting equipment, Individual boxed & unboxed rolls may exceed 70Kg each recommendation for 2 man lifting of these products. **Storage:** Rolls of film should be stored in a cool, dry structure in the original packaging and away from moisture and direct sunlight.

Teramax Compostable Ag Films is the registered business name of Teramax Pty Ltd.