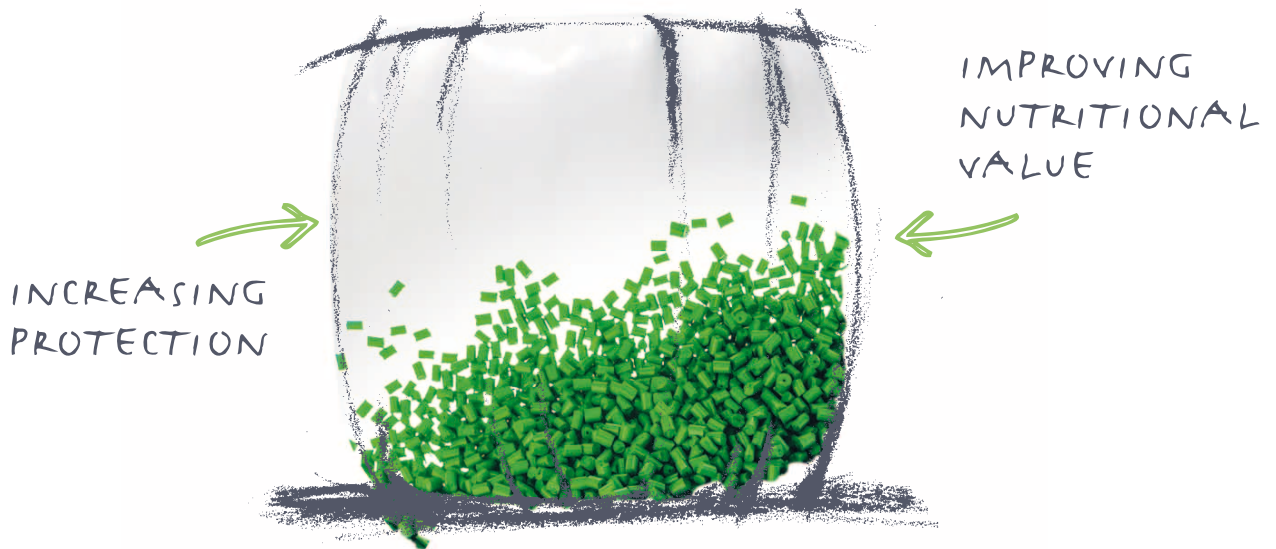


BRINGING LIFE  TO PLASTICS

SILAGE films





DECISIVE FACTORS FOR GOOD SILAGE FILM

- _ Type and suitability of the applied polyethylene grade for the actual application
- _ Constant film thickness and homogenous distribution of the constituent components
- _ Light fastness/UV stabilisation according to the geographic region of deployment and required/specified film service life span
- _ Resistance to environmental factors – e.g. agrochemicals, fertilizers, pesticides, liquid manure
- _ Good tacking of the overlapping film layers after stretch wrapping
- _ High puncture resistance and tear strength
- _ Compatibility of white/colour pigments with the light stabiliser and other components of film recipe
- _ Layer design and specific dosage per layer of recipe components (colour, functional additives) in the case of multilayer co-extrusion film

RAW MATERIAL



BEST POSSIBLE PROTECTION



EXCELLENT
FEED

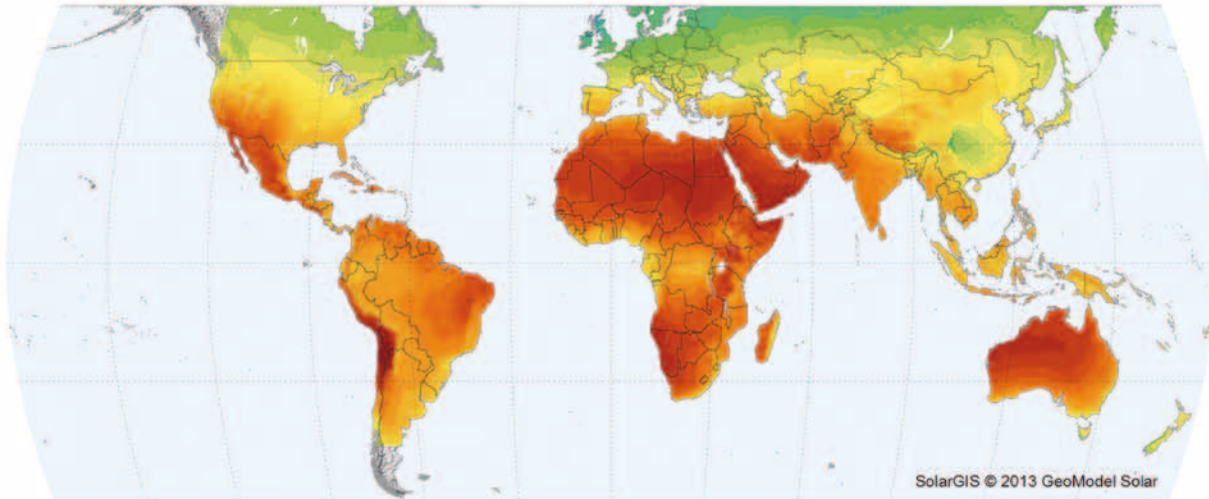
WHY SILAGE FILM?

Modern farming is driving the need for higher yields in milk production, improved quality of feed for livestock, healthy husbandry conditions and increasing independence from weather conditions. Silage feed offers an effective solution to these requirements and has therefore become an integral part of farm animal nutrition.

Production of silage feed in multilayer stretch wrap film – bale silage – or sliced in long Polyethylene tubes offers farmers a reliable and easy to handle solution.

For transforming grass, crops and other organic components into high quality fermented feed stuff by means of an anaerobic biologic-organic process, it is essential to use highest quality top-grade covering/wrapping film.

WORLD MAP OF GLOBAL IRRADIATION



Long-term average of: Annual sum 60 75-80 95 110-115 130 145 160-165 180 200 215 230 kLy/m²

1 kLy = 4,19 kJ/cm² = 11,63 kWh/m²
1 hour of sunshine = 33 - 77 Ly (average 45 Ly)

MAXITHEN® MASTERBATCHES FOR SILAGE FILM PRODUCTION

We have been producing colour and functional additive masterbatches since 1970 and offer numerous products under the "MAXITHEN®" brand and use this extensive experience to offer high quality masterbatch for bale silage applications.

MAXITHEN® masterbatches offer excellent protection of films against degradation by UV and heat radiation. Additionally, to meet your aesthetic requirements and to help silage bails blend easily into the natural landscape, we offer colouration in any desired shade.

Our standard RAL or Pantone colours offer a library of over 100,000 existing colours and decades of experience in colour matching any custom shade mean we have every colour option covered.

Formulations of white and coloured MAXITHEN® silage film masterbatch are almost always tailor-made to fully meet the exact requirements of the film producer.

Usually HALS based UV stabiliser is used according to individual requirement of the film manufacturer. UV stabilisation film is crucial to maintain functionality of the film and to fulfil the specified service life span. Natural light radiation has a strong impact on polymer degradation. Its intensity varies within the different global climate zones. The technical unit to measure light radiation is "Kilolangley per sqm".

THE FORMULATION DEPENDS ON

- _ Geographical area where the film is to be deployed
- _ Specified service life span of the film
- _ Specific dosage demands (existing dosing systems, limitations, etc.)
- _ Type of film (e.g. mono layer, multilayer-coex) and film design (layer thickness)

FOR MORE EXTENSIVE UV-STABILISATION AND/OR THE INCLUSION OF ADDITIONAL FUNCTIONALITY, THE FOLLOWING RANGE OF MAXITHEN® FUNCTIONAL ADDITIVES CAN BE APPLIED:

- _ MAXITHEN® HP 79860 UV – standard UV stabiliser, contains oligomeric-HALS
- _ MAXITHEN® HP 72630 UVAO – for films of higher wall thickness, UV stabiliser oligomeric-HALS combined with UV absorber and antioxidant for increased long-term thermal stability
- _ MAXITHEN® HP 72910 UVAO – for films of higher wall thickness, UV stabiliser with improved chemical resistance
- _ MAXITHEN® HP 7AA2600 UV – UV stabiliser based on NOR-HALS, combined with absorber, for greatest chemical resistance
- _ MAXITHEN® HP 790240 TACK – tackifier masterbatch
- _ MAXITHEN® HP 1139/60 and /70 White – white masterbatch with leading performance weather/light stable Titanium dioxide-pigment highly compatible with all HALS UV stabilisers
- _ MAXITHEN® HP 99611 Black – black masterbatch for films of higher wall thickness
- _ Rodent and vermin-repellent batches available on request

SERVICES

We offer silage stretch wrap film manufacturers in-depth support and joint-development of recipes and formulations by our Technical Service & Application department, state-of-the-art testing of all types of film in a Weather-O-Meter, extended lab-analysis (e.g. content and type of HALS stabiliser in films/dosage & recipe control), colour matching with COLIBRI system, free laboratory samples of all masterbatches and accompanied field tests. Our commitment to finding a solution for your application is second to none.



BUSINESS UNITS OF GABRIEL-CHEMIE GROUP:



Building & Agriculture



Home & Lifestyle



Packaging for Industrial & Consumer Goods



Cosmetics Packaging



Food & Beverage Packaging



Medical



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