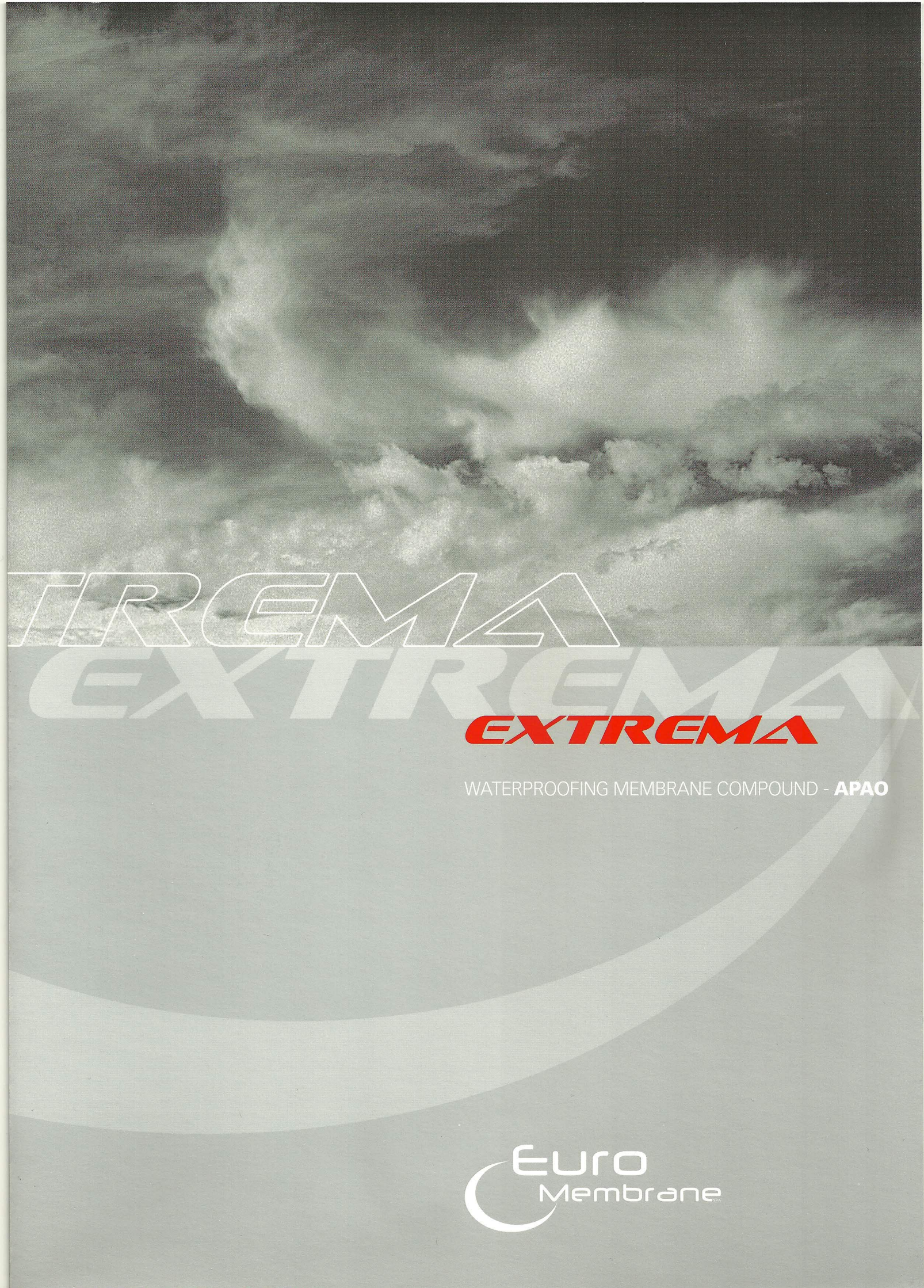




EXTREMA

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WATERPROOFING MEMBRANE COMPOUND - **APAO**

 **Euro**
Membrane

EXTREMA

-20°C - 25°C - 30°C



DESIGNED FOR HIGH-PERFORMANCE WATERPROOFING

EXTREMA bituminous membranes have been developed to solve most kinds of waterproofing requirements and to offer the most reliable and long-lasting protection for both roofing, tanking and civil engineering.

EXTREMA membranes offer the ultimate combination of reliable waterproofing and long-term service life, thus adding value to all the buildings where they are applied.

EXTREMA / APAO Waterproofing compound

The compound of the EXTREMA range consists of selected distilled bitumen modified with a unique mix of high-performance polymers of metallocenic origin belonging to the APAO family (Amorphous Poly Alpha Olefins).

This special formulation gives to the compound both the peculiar advantages of APP products (resistance to thermal ageing, heat stability, resistance to U.V. rays) and the typical features of SBS products (high cold flexibility and easy workability).

EXTREMA waterproofing coating sharply improves the product cold flexibility (up to -30°C) whilst maintaining the plasticity and superior heat resistance (up to 160°C) of the membrane.

The high polymeric contents dramatically improves the durability and life expectancy of the product. The chemical performances of the bituminous coating remain almost unchanged even after several years of ageing.

Regular laboratory checks confirm that EXTREMA compound is practically unaffected by exposure to UV and weathering agents. EXTREMA products can therefore be used in exposed systems without mineral protection, although a wide range of colour mineral protection is available for a larger designer choice.

EXTREMA / Innovative polyester reinforcements

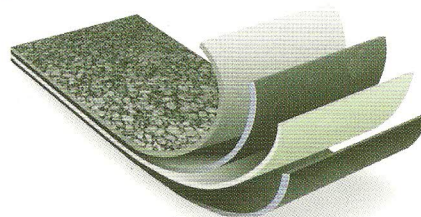
The reinforcements used in EXTREMA range are composite spunbond polyester fleeces stabilized with glass fiber threads or scrims. They guarantee the highest thermal stability, a good resistance to tearing, high elasticity and capability to accommodate mechanical severe stress.

The EXTREMA high-performance reinforcements allow the mechanical fixing of the membrane to the substrate (highest resistance to wind uplift) and the application over the most demanding building structures (highest resistance to static weights, foot traffic, rising water table, road-asphalt surfaces and concrete parking decks).

EXTREMA / Plain



EXTREMA / Mineral



APAO modified polymer bitumen.

Composite spunbond polyester.

Slate chips.

EXTREMA / Features

EXTREMA membranes are offered both in plain and mineral-protected version.

EXTREMA PLAIN has an underface protected by a special, easy-to-burn PE film and an upperface homogeneously treated by a fine sand surfacing.

MINERAL EXTREMA has the same underface and the upperface is protected by an uniform layer of natural or coloured slate chippings. The colour range includes Natural Grey, White, Red, Dark Brown, Green, Black and Brown Bourgogne (Tweed).

EXTREMA Advantages all in a row:

- Fast to apply. Increased installation speed.
- Safe overlaps. High compound adhesive strength.
- Consistency. Resistance to traffic and loads.
- Versatility. Wide variety of substrates and of installation methods (mechanical, hot-air, torch).
- User friendly. Clean and easy installation.
- Widest operating temperature range (-30°C/+160°C).
- Highest life expectancy.
- Improved Dimensional stability (shrink-free).
- Smooth and attractive top surface.
- Highest resistance to ageing and weathering.
- Insensitivity to climate changes.
- No blister formation, quick vapour diffusion.
- High fatigue resistance.
- Improved waterproofing performance.
- Dedicated technical Support.

EXTREMA / Uses and Installation

Thanks to their unique conception and to the level of their performance EXTREMA membranes are suitable for a wide variety of applications and installation techniques.

FIELDS OF APPLICATIONS

EXTREMA range is suitable for both new-build and refurbishment applications and can be used either as a cap sheet in a multilayer system or as a single-ply waterproofing.

Some of the typical uses: Renovation of existing bituminous roofs, Accessible and non accessible flat roof, Shed roofs, Insulated Metal decking, Foundations, Bridges and Viaducts, Car parks and Hydraulic works.

INSTALLATION TECHNIQUES

There are various systems of application:

- Fully bonded; (100% bonding)
- Partially bonded; (50 to 60 % bonding)
- Loose laid (only side and end overlap have to be bonded)

Due to the viscosity of bituminous mass and to the outstanding tearing resistance of the reinforcement EXTREMA can be mechanically fixed, traditional torch-on method or hot-air welding.

APPLICATION GENERALITIES

- The standard application procedure is as follows:
- Deck must be dry, clean, free from oil and sufficiently smooth.
- Apply a coat of bituminous primer Europrimer on all surfaces.
- Lay down the membranes rolls with the thermofusible film downwards
- After checking the correct alignment, unroll the rolls, then re-roll them slowly, heating the lower surfaces with a propane gas torch until the plastic film burns off and the bituminous mass starts melting.
- The side overlap have to be at least 10 cm and the end overlap 15 cm.

More information and details available through EUROMEMBRANE customer service.

EXTREMA -20°C -25°C -30°C

Waterproofing membrane compound - APAO

TECHNICAL CHARACTERISTICS	STANDARDS	AGREEMENT ITC 633/05					
		EXTREMA 20	EXTREMA 20 mineral	EXTREMA 25	EXTREMA 25 mineral	EXTREMA 30	EXTREMA 30 mineral
R&B Softening point	UNI EN 1427	≥ 140 °C	≥ 140 °C	≥ 150 °C	≥ 150 °C	≥ 160 °C	≥ 160 °C
Reinforcement		non-woven spunbond polyester	non-woven spunbond polyester	composite non-woven spunbond polyester	composite non-woven spunbond polyester	composite non-woven spunbond polyester	composite non-woven spunbond polyester
Length	UNI EN 1848-1	10 m	10 m	10 m	7,5 m	10 m	10 m
Width	UNI EN 1848-1	1 m	1 m	1 m	1 m	1 m	1 m
Thickness	UNI EN 1849-1	4 mm	/	4 mm	4 mm (on selvedge)	4 mm	/
Areic mass	UNI EN 1849-1	/	4,5 kg/m ² *	4,10 kg/m ²	5,10 kg/m ²	/	4,5 kg/m ² *
Cold flexibility	UNI EN 1109	-20°C	-20°C	-25°C	-25°C	-30°C	-30°C
Heat stability	UNI EN 1110	≥ 130 °C	≥ 130 °C	≥ 140 °C	≥ 140 °C	≥ 150 °C	≥ 150 °C
Tensile strenght - ultimate longitudinal load - ultimate trasverse load - ultimate longitudinal elongation - ultimate trasverse elongation	UNI EN 12311-1	800 N/5 cm 600 N/5 cm 43% 45%	800 N/5 cm 600 N/5 cm 43% 45%	850 N/5 cm 650 N/5 cm 50% 50%	850 N/5 cm 650 N/5 cm 50% 50%	1100 N/5 cm 850 N/5 cm 45% 45%	1100 N/5 cm 850 N/5 cm 45% 45%
Static puncture resistance - on fibre cement - on 20 kg/m ³ density polystyrene	UNI EN 12730	L ₁₅ L ₁₅	L ₁₅ L ₁₅	L ₂₅ L ₂₀	L ₂₅ L ₂₀	L ₂₅ L ₂₀	L ₂₅ L ₂₀
Impact resistance - on 20 kg/m ³ density polystyrene	UNI EN 12691	I ₁₅	I ₁₅	I ₁₀	I ₁₀	I ₁₀	I ₁₀
Impermeability to water	UNI EN 1928	No loss	No loss	No loss	No loss	No loss	No loss
Permeability to water vapour	UNI EN 1931	μ > 20,000	μ > 20,000	μ > 20,000	μ > 20,000	μ > 20,000	μ > 20,000

Tolerances above information per UEAtc European Directives of December 2001 for polymer bitumen membranes.

* MINERAL version is tested on the lower face.

Warning: all quoted values are indicative and concern our actual manufacture process; Euromembrane S.p.A. can update them at any time and without prior notice.

All technical data, suggestions and warnings refer to the best of our know-how concerning properties of the products and their applications.

For MINERAL version (covered with slate chips) the Company does not guarantee the colours' life-time. In consideration of the different applications of the products, and any external interference, Euromembrane S.p.A. does not take any responsibility as far as a correct application of the product is concerned.

	Thickness	Weight	Rolls
EXTREMA - 20	4 mm		23
EXTREMA - 20 MINERAL		4,5 kg/m ²	20
EXTREMA - 25	4 mm		23
EXTREMA - 25 MINERAL	4 mm (on selvedge)		23
EXTREMA - 30	4 mm		23
EXTREMA - 30 MINERAL		4,5 kg/m ²	20

