SELAC
ANTICORROSIVE XFC PRIMERS

Anticorrosive pure epoxy with ultra-fast curing for cycles T-RUST and T-RUST PLUS

DESCRIPTION

Selac XFC primers are epoxy based coatings representing the ideal solution to apply a multilayer coating system entirely based on powder coatings .
In multilayer systems

- **T-RUST PLUS** (with zinc-rich ZINTECH primers) o
- **T-RUST** (with zinc-free primers derivated from B921GSP)

the use of Selac XFC primers in combination with a suitable topcoat (PE-A , PE-I , PE-SD polyesters in case of outdoor goods or epoxypolyesters for indoor goods) allows to obtain a very performing system having high functional , aesthetic and decorative properties .
Anticorrosive and decorative properties are combined with high reactivity , and therefore represent an advanced technology finalized to reduce the costs of painting , in which a more and more important factor is represented by the thermal energy necessary to the polymerization .
Very low curing temperatures or short curing times allow to keep energetic consumption low , resulting in a better productivity , thanks to the higher speed of the conveyor .
For further details please request specific TDS .

GENERAL PROPERTIES

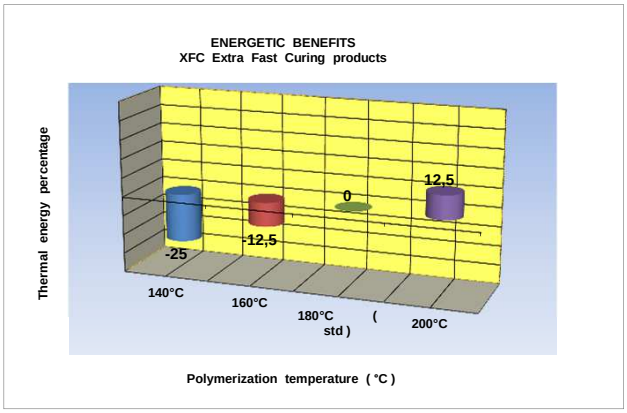
High reactivity
Good mechanical properties
Reduced resistivity , meaning easier overcoatability
Excellent overcoatability with topcoats , even 30 days after primer application
Excellent adhesion to substrate and excellent intercoating adhesion
Outstanding corrosion resistance (see drafts)
Good " anti-bubble " properties
Good adhesion on galvanized supports

COLOURS AND EFFECTS

Smooth surface
Grey colour ; taylor-made versions are possible
Gloss range from 45 up to 95 gloss

ENERGY BENEFITS OF XFC PRODUCTS

The draft expresses the percentage of energy saving possible on a painting line by the use of XFC products instead of standard powders (curing 20' @ 180°C) on the same weight of metal .



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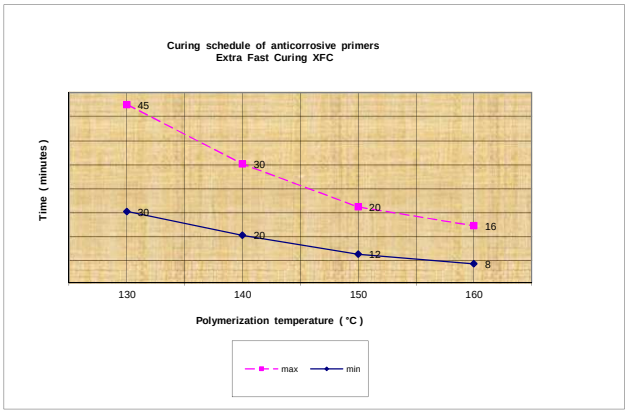
CURING CONDITIONS

Drafts interpretation
To obtain functional , optical and aesthetic properties mentioned in TDS the curing schedule adopted for the products must be in any point of the draft area comprised between the curves of minimum and maximum .
Times always refer to object temperature (PMT) , being the heating time variable from item to item and from plant to plant .



Minimal conditions (PMT)
30' @130°C - 20' @ 140°C - 12' @ 150°C - 8' @ 160°C

Selac XFC primers may be cured in conventional , IR irradiance or combined ovens .
Special versions suitable for the curing in direct gas ovens (DG) can be developed on demand .
Always consult the specific TDS of each single product or contact arsonsisi s.p.a.

MULTILAYER SYSTEMS

The polymerization of the primer may be completed also after the application of the topcoat layer (with PE-A , PE-I , PE-SD polyesters or with hybrid products in case of goods not for exterior) .
In these cases the coating cycle may include a 2-3 minute semi-polymerization in the oven , the overcoating with the topcoat and the contextual compete curing of both two layers in the conditions defined for the topcoat , if they are suitable for the primer too .
This cycle ensures a very good adhesion to the support as well as an excellent intercoating adhesion .

Further informations about the corrosivity classes according with norm ISO 12944 are mentioned on a dedicate informative leaflet , available on demand .

SUPPORT PREPARATION

Painting must be done on clean support , free from oil , grease , oxidation , residuals of working , welding and rinsing processes , and any contaminating agent must be avoided .
Iron and steel : iron or zinc salts phosphatization
Aluminium : cromatation or chrome-free pretreatment are recommended
Hot dipping galvanized steel : according with the item adopt mechanical treatment , phosphatization or chromatation process .

THICKNESS

Minimal recommended thickness is 60 microns , but in any case the coating layer must completely cover any surface roughness , especially in case of sandblasted supports .

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APPLICATION METHODS AND RECYCLE

The application is possible with manual or automatic electrostatic devices , both corona and tribo .
Overspray can be recycled in the fresh powder and re-used , but the use of integral recycle is not recommended at all ; do not exceed 25% and maintain a constant feeding of fresh powder .
According with density of some products , a dedicated spraying set-up must be defined , An increasing of spraying and fluidizing air pressure could be necessary .

TECHNICAL FEATURES

Specific gravity : 1,4 to 2,7 g/cc , according colour and formula
Theoretical yield at 60 micron : 12 to 6,2 sqm/kg according with colour and formula
Brilliance range at 60° : 45 to 95
Average particle size (laser Malvern) : 32 - 45 micron
X99 particle size (laser Malvern) : 95 - 150 micron
********** NOTE : taylor-made particle size distributions are possible on demand**

MECHANICAL PROPERTIES

Test conditions : trials are made on normalized UNI 5961 panels 0,6 mm thick , degreased with solvent , coated with 70 - 80 micron of powder completely cured .
Mentioned results are obtained under controlled lab conditions ; therefore these values are merely indicative and must be confirmed in the actual use conditions under the responsibility of each single user .

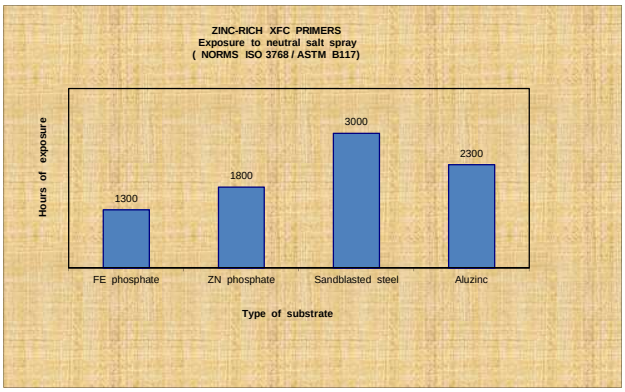
Minimal polymerization conditions (PMT)
30' @130°C - 20' @ 140°C - 12' @ 150°C - 8' @ 160°C
Primer thickness : 70 - 80 micron .
Direct impact : min. 20 Nm (ISO 6272)
Erichsen embossing (ISO 1520) : min. 4 mm
Cylindrical mandrel (ISO 1519/73) : pass 3/16" = 5 mm
Adhesion (ISO 2409) : GT 0/1
Buchholz hardness (ISO 2815) : min. 85
Pencil hardness (ASTM D3363) : H - 2H

CORROSION AND DURABILITY

Test conditions : trials are made on normalized UNI 5961 panels 0,6 mm thick , treated by microcristalline zinc salts phosphatization , or on AA 5005-H24 chromatated aluminium panels , coated with 70 - 80 micron of powder completely cured .
Mentioned results are obtained under controlled lab conditions ; therefore these values are merely indicative and must be confirmed in the actual use conditions under the responsibility of each single user .

Further informations about the corrosivity classes according with norm ISO 12944 are mentioned on a dedicate informative leaflet , available on demand .

ZINC-RICH PRIMERS



Salt spray test (ISO 3768 / ASTM B117)
Support UNI 5961 steel treated by zinc phospate
After 1800 hours rust penetration at the cross-hatch : max. 4 mm
Saline-acetic spray test (ISO 9227)

Support UNI 5961 steel treated by zinc phospate
After 1500 hours rust penetration at the cross-hatch : max. 16 mm

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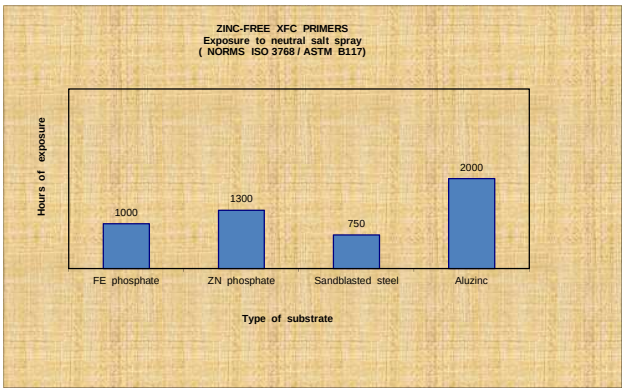
ZINC-FREE PRIMERS



Salt spray test (ISO 3768 / ASTM B117)

Support UNI 5961 steel treated by zinc phosphate
After 1300 hours rust penetration at the cross-hatch : max. 4 mm

Saline-acetic spray test (ISO 9227)

Support UNI 5961 steel treated by zinc phosphate
After 800 hours rust penetration at the cross-hatch : max. 16 mm

STORAGE AND STABILITY

Products must be stored in the original sealed packagings , in a cool and dry place and at a temperature not exceeding 30°C .
In these conditions **XFC Primers** are usually stable for a period of at least 6 but particular formulations may have different storing life .
Always consult the specific TDS of each single product or contact arsonsisi s.p.a.

RECOMMENDATIONS

These informations are given on the base of our best experience as well as the one of specialized laboratories and they are continuously updated , nevertheless the user has the complete responsibility to apply and to experiment the products according its own specific necessities .
This document has the intention to describe and summarize the main properties of arsonsisi products , but in no case it can be considered as a warranty for them .
Further informations about application of metallic effects , maintenance of goods coated with homologated polyesters or availability of special versions are mentioned in specific technical integrative notes .