

**TEHNIICAL DATA SHEET**

**Product description**

<b>Description:</b>	PRIMACTIV G4100PT are two-component, acid-crosslinked (reactive) primers based on epoxy and acrylic resins, polyvinyl butyral, pigments and organic solvents; they act chemically on ferrous and non-ferrous metal surfaces, producing both an etch primer and an anti-corrosion protection with exceptional adhesion to the surface, which can be inactivated in high humidity conditions ('wash primer') if overcoating is not applied.
<b>Use:</b>	<p>PRIMACTIV G4100PT is used for the treatment of galvanized surfaces to prepare them for overcoating, as an alternative treatment of aluminium to improve the adhesion of paints to aluminium surfaces and as corrosion protection of carbon steel surfaces:</p> <ul style="list-style-type: none"><li>• for corrosion protection of mechanically prepared or sandblasted metal surfaces, especially in high humidity environments</li><li>• in chemical industry for painting tanks and machinery</li><li>• in the oil industry when painting pipelines, oil tanks and wells</li><li>• in the transport and agricultural machinery industry</li><li>• in aviation as curing agents for the light alloys of which the surface is made and as anchorage of the paint system to the surface</li><li>• due to its excellent anti-corrosive properties, G4100PT reactive primers are used in the navy for paintings for tropical conditions</li></ul> <p>They are temporary protective primers that also help to increase the adhesion of films on surfaces to which conventional paints have poor adhesion (alloys, aluminium, copper, galvanised sheet metal, polished OL-steel). G4100PT series primers cannot replace conventional anti-corrosion primers and do not provide outstanding protection longer than one week in outdoor conditions or 4 months in dry closed spaces, when applied as such on steel (OL).</p>
<b>Main characteristic elements:</b>	<ul style="list-style-type: none"><li>• outstanding corrosion resistance</li><li>• excellent adhesion on clean surfaces</li><li>• high durability</li><li>• can be easily covered by painting</li></ul>
<b>Compatibility</b>	G4100PT series primer should not be mixed with other products.
<b>Shelf life in packaging:</b>	<b>48 months</b> from the date of manufacture for both the basic component and the hardener, with separate packaging. During this period the following changes are possible which do not affect the film forming properties of the products: increased viscosity (removed by correction with D553 thinner) and pigment sedimentation (removed by stirring until perfectly homogenized).
<b>Product type:</b>	The product is two-component and is delivered in 2 components: <ul style="list-style-type: none"><li>• component A – G4100PT primer</li><li>• component B – I562 acid hardener</li></ul>
<b>Packaging:</b>	<ul style="list-style-type: none"><li>• G4100PT is packaged in 4kg capacity metal packaging to which the label is affixed.</li><li>• I562 hardener: in a PVC bottle with a capacity of 0.12L, 0.07L</li></ul>
<b>Storage:</b>	in closed, dry, covered, ventilated spaces, protected against weather and solar radiation, away from fire sources, at temperatures between 5 - 25°C.
<b>Shipping:</b>	The products are shipped by covered means of transport according to the regulations in force.
<b>Assortments:</b>	<ul style="list-style-type: none"><li>• yellow primer: G4143PT; other shades available on request.</li></ul>

**TECHNICAL QUALITY CHARACTERISTICS**
**Table no.1**

Item No.	Characteristic name	MU	Characteristic value	Method of analysis
1	Appearance	-	homogeneous liquid, without mechanical impurities	visual
2	Mixing ratio (mass) - component A - component B	- -	100 3	-
3	Pot-life, 20°C	h	8	SR EN ISO 9514:2019
4	Density, 23 °C	kg/l	1.0 ± 0.1	SR EN ISO 2811-1:2016
5	Volatile organic compounds, VOC, max.	g/l	760	SR EN ISO 11890-1:2007
6	Theoretical consumption	g/m <sup>2</sup> /strat m <sup>2</sup> /Kg/strat	~60- la 20μ ~17- la 20μ	practical determination
7	Persoz hardness, min.	s	180	SR EN ISO 1522:2007
8	Adhesion, 1 mm grid	-	0-1 very good	SR EN ISO 2409:2020
9	Touch dry time, -Dry to touch (type B), 20μm -Dry to touch, type D	min. min.	10 20	ASTM D 1640 / D1640M - 14 (2018)

**Mixture technical data:**
**Product preparation:**

The base and its hardener form one application unit. Always prepare a complete unit. Once prepared, the material should be used according to its pot-life. For best results before application, condition products at temperatures above 20 °C (max. 35 °C).

Before preparation:

- mix the base well with a mechanical stirrer
- mix the entire quantity of hardener corresponding to the basic quantity, using a mechanical stirrer; avoid preparing subunit quantities

**Mixing ratio:**

- G4100PT base: I562 acid hardener = 100p:3p (mass), 100p: 3.5p (volume)

**Pre-reaction time:**

- 15 minutes, 23°C

**Pot-life 20°C:**

- 8 h - air spraying

**Methods of application/ Parameters (nozzle / pressure)**

- air spraying: 2.5 - 3atm/ 1.8mm

Remark: The application parameters are indicative and are chosen according to the situation.

**Thinner/ dilution:**

Do not dilute. Use D553 for surface degreasing and tools cleaning.

**Re-coating period:**

- min. 1h/ max. 24h

<b><u>Application conditions:</u></b>	G4100PT primers should be applied on clean, dry surfaces with temperatures above the dew point to avoid moisture condensation on the surface. The relative humidity should not exceed 70%. The application is optimal if the temperature of the environment and the mixture is 10-30°C.
<b>Preparation of the product for application</b>	
<b><u>Surface preparation:</u></b>	<p>The degree of preparation of the surface is a determining factor in achieving the performance of the protection system. The surface must be free of surface defects (material overlaps, cracks, weld spatter, etc.).</p> <p><b>New metal surfaces:</b> sandblasting to Sa grade 2½ according to ISO 8501-1:2007 or 2 according to STAS 10166 / 1- 77, with surface preparation according to SR ISO 8504-1:2020, SR ISO 8504-2:2020, SR ISO 8504-3:2019. The surface is then dedusted with compressed air.</p> <p><b>Old surfaces:</b> remove old paint, degrease with detergent, remove salt or other contaminants by cleaning with water (at high pressure), sandblasting at minimum Sa 2 or mechanical cleaning at St 3 (vigorous brushing in perpendicular directions), dedusting. Surface polishing must be avoided.</p>
<b><u>Remarks:</u></b>	<p>To ensure good adhesion for subsequent coats, PRIMACTIV G4100PT must meet the following conditions:</p> <ul style="list-style-type: none"> <li>• the primer should be applied in a dry coat thickness around 18µm (max. 20 – wet /max 60µm)</li> <li>• the primer coat obtained must be uniform, of good quality</li> <li>• drying and hardening conditions will be as specified under APPLICATION CONDITIONS until complete hardening</li> <li>• surfaces MUST be perfectly clean before re-coating</li> </ul> <p>Special attention will be paid to the preparation of galvanized surfaces.</p> <p><b>OLD GALVANIZED SURFACES</b> (matt surfaces): degrease with detergent, remove salt or other contaminants by cleaning with water at high pressure, mechanical cleaning to St 3 (by brushing), dedusting, priming.</p> <p><b>NEW GALVANIZED SURFACES</b> (glossy surfaces): degrease with detergent, wash with water, pickle with DK 561 pickling solution, allow to dry, apply primer.</p>
<b><u>Application instructions:</u></b>	<p>Condition the components at 10-30 °C, mix well and then prepare the mixture: 100 ratios (mass) primer + 3 ratios (mass) hardener. During the pre-reaction time (15 minutes) continue mixing by stirring. The mixture is applied according to the viscosity of delivery. Once prepared, the G4100PT products can be applied:</p> <ul style="list-style-type: none"> <li>• on metal surfaces: directly on a properly prepared metal surface</li> <li>• on non-ferrous metal surfaces to which ordinary paints have poor adhesion (alloys, aluminium, copper, galvanized sheet, polished OL-steel) and which have been properly prepared beforehand</li> <li>• as a primary coating over which coating systems can be applied: epoxy, epoxy-tar, polyurethane, acrylic, vinyl, alkyd, nitrocellulose, etc.</li> </ul>
<b><u>Security Data:</u></b>	See the product safety data sheet.
<b><u>Occupational safety:</u></b>	<p>All handling, shipping, storage and use operations must be carried out in full compliance with fire prevention, occupational health and safety and hygiene regulations.</p> <p>The following are prohibited: use of electrical equipment and tools that do not comply with the rules for potentially explosive environments, the presence of any open fire sources (sparks, flames, smoking), prolonged or frequent skin and mucous membrane contact, prolonged or frequent inhalation of vapours, ingestion of the product.</p>
<b><u>Environmental protection measures:</u></b>	If all handling, shipping and storage operations are carried out according to the rules of occupational safety and fire prevention for flammable and toxic products, there will be no endangering conditions for human health and safety.
<b><u>Note:</u></b>	All these data are of a general nature regarding the performance and use of the product, therefore we recommend testing the product under the conditions of the beneficiary's own application technology. For further clarification, please contact the manufacturer.