



PRODUCT DATA SHEET

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CSC Master Format™ 03 60 00 (03 01 00)
GROUTING

Sika® Pronto-11

CONVENIENT, PLANT-PROPORTIONED, SOLVENT-FREE, MORTAR SYSTEM

Description	Sika® Pronto-11 is a two-component, rapid-curing, solvent-free, modified methacrylate mortar system. Usable at low temperatures.
Where to Use	<ul style="list-style-type: none"> ▪ On grade, above and below grade on concrete and mortar. ▪ On horizontal surfaces. ▪ On structural repair of concrete. ▪ As a structural grout for base plates up to 600 mm x 600 mm. ▪ For patching and overlays where a highly chemical resistant mortar is required. ▪ For patching concrete structures, roadways, bridge decks, joint headers and floors.
Advantages	<ul style="list-style-type: none"> ▪ High early-strength. ▪ High compressive strength. ▪ High flexural strength. ▪ High chemical resistance. ▪ Applicable down to -10 °C (14 °F) (Regular). ▪ Applicable down to -25 °C (-13 °F) (with usage of Sub-Zero additive). ▪ Easy, on-site batching. ▪ Not flammable. ▪ Not a vapour barrier. ▪ Low odour. ▪ No priming required for most applications. ▪ Meets the requirements of CFIA and USDA for use in food plants for freezer floors. ▪ Ministry of Transport Québec acceptance.

Technical Data				
Packaging	Component A	3 L (0.79 US gal.) jug		
	Component B	21.9 kg (48.3 lb) bag		
	Sub-Zero Component	575 mL (19 oz) plastic container		
Colour	Grey			
Yield	Grout: 25 - 100 mm (1 - 4 in) 12 L (0.42 ft³) / unit Mortar: 6 - 19 mm (1/4 - 3/4 in); approx. 12 L (0.42 ft³)/unit Concrete: 20 - 450 mm (3/4 - 18 in); extended with clean, oven-dried aggregate.			
Shelf Life	Component A and B :12 months in original, unopened packaging. Sub-Zero Component : 24 months in original, unopened container. Store dry between 5 and 32 °C (41 and 89 °F). For best results, pre-condition the product to installation-site temperatures for at least 24 hours before use.			
Mix Ratio	Do not mix less than complete units.			
Application Temperatures (ambient and material)	Sika® Pronto-11 (A+B): -10 to 23 °C (14 to 73 °F) Sika® Pronto-11 (A+B) with Sub-Zero Component: -25 to 0 °C (-13 to 32 °F)			
Properties at 23 °C (73 °F) and 50% R.H.				
Working Times				
	Temperature	Ambient	Pot Life (min)	Setting Time (min)
Sika® Pronto-11 (A+B)	Material			
	23 °C (73 °F)	23 °C (73 °F)	15	30
	5 °C (41 °F)	5 °C (41 °F)	60	90
	-10 °C (14 °F)	-10 °C (14 °F)	60	90
Sika® Pronto-11 (A+B) with Sub-Zero Component				
	0 °C (32 °F)	0 °C (32 °F)	25	30
	-25 °C (-13 °F)	-25 °C (-13 °F)	70	80

Compressive Strength ASTM C579, MPa (psi)				
Material/Ambient °T	-25 °C (-13 °F)*	-10 °C (14 °F)	5 °C (41 °F)	23 °C (73 °F)
1 hr	-	-	-	16 (2321)
2 hrs	-	10 (1451)	-	37 (5368)
4 hrs	-	15 (2176)	19 (2757)	49 (7110)
8 hrs	-	20 (2902)	22 (3192)	51 (7400)
1 day	41 (5949)	30 (4353)	40 (5804)	56 (8125)
3 days	48 (6945)	35 (5078)	51 (7400)	57 (8270)
7 days	64 (9286)	43 (6239)	56 (8125)	63 (9141)
14 days	-	51 (7400)	58 (8415)	65 (9431)
*with Sub-Zero Component				
Bond Strength ASTM C882 Modified				
2 days	Dry cure		20 MPa (2902 psi)	
14 days	Moist cure		19 MPa (2757 psi)	
Tensile Properties ASTM D638				
14 days	Tensile strength		9.6 MPa (1393 psi)	
	Elongation at break		0.35 %	
	Modulus of elasticity		11 GPa (16 x 10 ¹² psi)	
Flexural Properties ASTM D790				
14 days	Flexural strength (modulus of rupture)		20 MPa (2902 psi)	
	Tangent modulus of elasticity in bending		11 GPa (16 x 10 ¹² psi)	
Thermal Compatibility				
ASTM C884	Passed			
Coefficient of Thermal Expansion ASTM C531				
Neat			3.60 x 10 ⁻⁵ /°C (2.0 x 10 ⁻⁵ /°F)	
Extended with 10 mm (3/8 in) pea gravel			3.24 x 10 ⁻⁵ /°C (1.8 x 10 ⁻⁵ /°F)	
Traffic Time	Open to traffic in 1 - 3 h after finishing			
Sika® Pronto-11 Anchor Pullout Tests				
Embedment Depth	Avg. Load	Failure Mode		
mm (in)	kN (lbf)			
305 (12)	245 (55 078)	Rock uplift		
508 (20)	734* (165 010)	No failure		
915 (36)	667* (149 947)	No failure		
Anchor Type - 35 mm (1 3/8 in) diameter, fy = 827 MPa. Deformed bars grouted in rock hole diameter 57 mm (2 1/4 in) percussion drilled.				
*Maximum load before test was terminated.				
VOC Content	< 6 g/L			
Chemical Resistance	Contact Sika Canada			
<i>Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.</i>				

HOW TO USE

Surface Preparation

Following ICRI Guideline 310.2, the concrete surface must be clean, sound and mechanically prepared to obtain a surface profile of CSP 6 – 10 (ex : hydrodemolition, scarification, scabbling + sandblasting, etc.). Follow ICRI Guideline 310.1 for the preparation of the repair perimeter, the repair area geometry and for the cleaning of the concrete and reinforcing steel surfaces. Verify the absence of micro cracking following ICRI Guideline 310.2. For best results, substrate should be dry. However, a saturated surface dry (SSD) condition is acceptable. At temperatures below 0 °C (32 °F) surface must be free of ice and frost and must be dry.

Mixing

DO NOT MIX LESS THAN COMPLETE UNITS. Mix using a heavy duty low speed electric drill/mixer (300 - 450 rpm) and mixing paddle (*Jiffy* or *Exomixer*®/spiral type) or a mortar mixer. Slowly add entire contents of component B to A in a clean pail or mixer and mix until a uniform, pourable consistency is achieved. Mix until uniform colour and consistency are obtained (approx. three (3) minutes). When temperatures are between -10 and -25 °C (14 and -13 °F), add Sika® Pronto Sub-Zero component to the blended components A and B. For application greater than 19 mm (3/4 in) in depth, then add 10 mm (3/8 in) coarse aggregate. The aggregate must be non-reactive (reference ASTM C1260, C227, and C289), clean, well graded, oven-dried, have low absorption, high density and comply with ASTM C33, size number 8 per table 2.

Note: Variances in aggregate may result in different strengths.

As concrete, extend the unit as indicated based upon placement depth.

20 - 150 mm (3/4 - 6 in); use with 12 - 15 kg (25 - 33 lb), 6 - 10 mm (1/4 - 3/8 in) oven-dried aggregate.

100 - 450 mm (4 - 18 in); use with 15 - 25 kg (33 - 55 lb), 13 - 22 mm (1/2 - 7/8 in) oven-dried aggregate.

Application

Grout: The formwork used to contain the grout shall be constructed in a workmanlike manner and caulked to prevent leakage of grout. Provisions shall be made at the high points for air to be vented as it is displaced by grout. The prepared grout must be transported to the forms and deposited without delay. External vibration and agitation of the grout in the forms is permitted. Several hours after placement of grout (depending on ambient temperatures) forms may be removed.

Mortar: Priming not generally required. Place Sika® Pronto-11 mortar on substrate to fill all pores and voids. Force material against edge of repair, working towards center. A small pencil vibrator or vibrating screed should be used to release entrapped air, improve wetting, and aid finishing. Finish by conventional methods. Allow the material to sit for 5 to 10 minutes before finishing.

Concrete: Priming is generally not required. However for very porous surfaces and/or dry mixes, prime the prepared surface with a scrub coat Sika® Pronto-11 unextended onto the surface. While primer/scrub coat is still tacky, place Sika® Pronto-11 concrete using the methods as described for the mortar.

Overlays: Install control joints by forming or sawcuts spaced at 1.2 m (4 ft) each way within 1 hour of placing the mortar or concrete. The control joints must be full depth of the overlay. Fill control joints once the material has cooled with additional mortar, Sika® Pronto-11, a Sikadur® or Sikaflex® product.

Anchoring: Anchor holes should be percussion-drilled. Holes should be dry at the time of grouting. Hole size should be 25 mm (1 in) larger than anchor.

Clean Up

Remove uncured product from tools and mixing equipment with water. Cured material can only be removed mechanically.

Component A and Sub-Zero: In case of spillage, collect and/or absorb and dispose of in accordance with applicable local regulations.

Component B: Sweep powder into appropriate container and dispose of in accordance with applicable local regulations.

Limitations

- Minimum ambient and substrate temperature: -10 °C (14 °F) with Sika® Pronto-11 (A+B) or -25 °C (-13 °F) if the Sub-Zero Component is added.
- Application thickness 25 - 100 mm (1 - 4 in) as base plate grout. For greater thickness, contact Sika Canada.
- Application thickness 6 - 19 mm (1/4 - 3/4 in) as mortar.
- Minimum age of concrete substrate: 21 - 28 days, depending on drying and curing conditions.
- Do not thin Sika® Pronto-11, solvents will prevent proper cure.
- Use only oven-dried aggregates.
- Normal curing conditions not required. Protect from rain for 3 hours at 21 °C (70 °F), longer if temperatures are lower.
- Use Sub-Zero Component only when surface, ambient temperatures and Sika® Pronto-11 components are below 0 °C (32 °F). Do not use Sub-Zero Component at temperatures above 0 °C (32 °F).

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

The Information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions, within their shelflife. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

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