PENTENS T-200H

UV Resistant Elastomeric Waterproofing Coating

Description

PENTENS T-200H is based on a newly developed Water based Polyurethane and Acrylic Polymers. It is dramatically reduces solar heat absorption in either air-conditioned or non-air conditioned buildings. It takes the majority of the heat load off a building's skin and reduces temperatures to approximately that of outside shade.

Uses

PENTENS T-200H is a one-part elastomeric cross linking latex copolymer emulsion designed as exposed waterproofing coating on:

- RC gutters and planter boxes
- Floor slabs
- Roof decks
- Wood siding / Fences
- External wall
- Flat roof
- Metal roof
- Concrete structures

Advantages

- High elongation
- Can resist to ponding water.
- Water based, environment friendly.
- Air and UV protection.
- Self-cleaning and weather resistant
- Chemical resistant and waterproof.
- User friendly, suitable use on any surface.
- Adheres well over aged, galvanized and metal roofs, wood, asphalt or aluminum coatings, polystyrene foam insulation, polyester plastic panels, pre-cast flat concrete and barrel cement tiles and many roofing materials.
- Prevention of ravages of acid rain, freezethaw, cycles, sunlight, bacteria and fungus.
- Non-toxic.

Technical & Physical Data

Color Grey, white, green, yellow etc Modified Polyurethane and Acrylic Density 1.10 Solid content Elongation Tensile Strength (ASTM C412) Tear Strength (ASTM D624) Solar reflectance (JIS R 3106) Solar Absorptance (JIS R 3106) Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength b. Elongation c. Tear strength C. Tear strength Selfom C. Tear strength Selfom Solar Absorptance C. Tear strength Selfom C. Tear strength Selfom Selfom Solar Absorptance ASTM E96 Method B Curing Time Service Temperature Self life At least 1 year when unopened and damaged Storage condition Packaging Packaging Orc to 80°C At least 1 year when unopened and damaged Store in a dry cool place 20kg pail 200kg drum	Form	Liquid
Resin	Color	Grey, white,
Resin Density Density 1.10 Solid content Solid content Solid content Elongation Tensile Strength (ASTM C412) Tear Strength (ASTM D624) Solar reflectance (JIS R 3106) Solar Absorptance (JIS R 3106) Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength b. Elongation c. Tear strength Solar Transmission ASTM E96 Method B Curing Time Application Temperature Self life Storage condition Packaging Packag		green, yellow etc
Acrylic Density Density 1.10 Solid content > 55 % by weight Elongation Tensile Strength (ASTM C412) Tear Strength (ASTM D624) Solar reflectance (JIS R 3106) Solar Absorptance (JIS R 3106) Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength b. Elongation c. Tear strength Vater Vapor Transmission ASTM E96 Method B Curing Time Application Temperature Service Temperature Self life Packaging Packaging Acrylic 1.10 > 55 % by weight > 40 kgf/cm² > 15 kgf/cm² > 15 kgf/cm² > 50 kgf/cm² > 450% - 15 kgf/cm² > 450% - 2 Verms Curing Time 12 hours Application Temperature S°C to 40°C Service Temperature Self life When unopened and damaged Store in a dry cool place Packaging 20kg pail	Resin	Modified
Density1.10Solid content> 55 % by weightElongation> 515%Tensile Strength (ASTM C412)> 40 kgf/cm²Tear Strength (ASTM D624)> 15 kgf/cm²Solar reflectance (JIS R 3106)86.9 %Solar Absorptance (JIS R 3106)13.1%Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength b. Elongation c. Tear strength> 50 kgf/cm²b. Elongation c. Tear strength> 15 kgf/cm²Water Vapor Transmission ASTM E96 Method B Curing Time< 5°C to 40°C		Polyurethane and
Solid content> 55 % by weightElongation> 515%Tensile Strength (ASTM C412)> 40 kgf/cm²Tear Strength (ASTM D624)> 15 kgf/cm²Solar reflectance (JIS R 3106)86.9 %Solar Absorptance (JIS R 3106)13.1%Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength b. Elongation c. Tear strength> 50 kgf/cm²b. Elongation c. Tear strength> 450% > > 15 kgf/cm²Water Vapor Transmission ASTM E96 Method B Curing Time<5 Perms		Acrylic
Elongation> 515%Tensile Strength (ASTM C412)> 40 kgf/cm²Tear Strength (ASTM D624)> 15 kgf/cm²Solar reflectance (JIS R 3106)86.9 %Solar Absorptance (JIS R 3106)13.1%Aging test at 80°C, 168 Hrs (ASTM D573-04)> 50 kgf/cm²a. Tensile strength b. Elongation c. Tear strength> 50 kgf/cm²Water Vapor Transmission ASTM E96 Method B<5 Perms	Density	1.10
Elongation> 515%Tensile Strength (ASTM C412)> 40 kgf/cm²Tear Strength (ASTM D624)> 15 kgf/cm²Solar reflectance (JIS R 3106)86.9 %Solar Absorptance (JIS R 3106)13.1%Aging test at 80°C, 168 Hrs (ASTM D573-04)> 50 kgf/cm²a. Tensile strength b. Elongation c. Tear strength> 50 kgf/cm²Water Vapor Transmission ASTM E96 Method B<5 Perms	Solid content	> 55 % by weight
(ASTM C412)> 40 kgf/cmTear Strength (ASTM D624)> 15 kgf/cm²Solar reflectance (JIS R 3106)86.9 %Solar Absorptance (JIS R 3106)13.1%Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength b. Elongation c. Tear strength> 50 kgf/cm²b. Elongation c. Tear strength> 15 kgf/cm²Water Vapor Transmission ASTM E96 Method B<5 Perms	Elongation	
Tear Strength (ASTM D624) Solar reflectance (JIS R 3106) Solar Absorptance (JIS R 3106) Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength b. Elongation c. Tear strength Water Vapor Transmission ASTM E96 Method B Curing Time Application Temperature Service Temperature Self life Storage condition Packaging Solar Absorptance (JIS R 3106) 13.1% 13.1% 13.1% 13.1% 13.1% 250 kgf/cm² > 450% > 15 kgf/cm²	Tensile Strength	$> 40 \text{ kgf/cm}^2$
Solar reflectance (JIS R 3106) Solar Absorptance (JIS R 3106) 13.1% Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength > 50 kgf/cm² b. Elongation > 450% c. Tear strength > 15 kgf/cm² Water Vapor Transmission ASTM E96 Method B <5 Perms Curing Time 12 hours Application Temperature 5°C to 40°C Service Temperature 0°C to 80°C At least 1 year Self life when unopened and damaged Storage condition Store in a dry cool place 20kg pail	(ASTM C412)	
Solar reflectance (JIS R 3106) Solar Absorptance (JIS R 3106) Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength b. Elongation c. Tear strength Vater Vapor Transmission ASTM E96 Method B Curing Time Application Temperature Service Temperature Self life Storage condition Packaging 86.9 % 13.1% 13.1% 13.1% > 50 kgf/cm² > 450% > 15 kgf/cm²	Tear Strength	> 15 kgf/cm ²
(JIS R 3106) Solar Absorptance (JIS R 3106) Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength b. Elongation c. Tear strength Water Vapor Transmission ASTM E96 Method B Curing Time Application Temperature Service Temperature Self life Storage condition Packaging 86.9 % 13.1% 13.1% 13.1% > 50 kgf/cm² > 450% > 15 kgf/cm²	(ASTM D624)	
Solar Absorptance (JIS R 3106) 13.1% Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength > 50 kgf/cm² b. Elongation > 450% c. Tear strength > 15 kgf/cm² Water Vapor Transmission ASTM E96 Method B <5 Perms Curing Time 12 hours Application Temperature 5°C to 40°C Service Temperature 0°C to 80°C At least 1 year Self life when unopened and damaged Storage condition Store in a dry cool place 20kg pail	Solar reflectance	86.9 %
(JIS R 3106)13.1%Aging test at 80°C, 168 Hrs(ASTM D573-04)a. Tensile strength> 50 kgf/cm²b. Elongation> 450%c. Tear strength> 15 kgf/cm²Water Vapor TransmissionASTM E96 Method BCuring Time12 hoursApplication Temperature5°C to 40°CService Temperature0°C to 80°CAt least 1 yearSelf lifewhen unopened and damagedStorage conditionStore in a dry cool placePackaging20kg pail	(JIS R 3106)	
Aging test at 80°C, 168 Hrs (ASTM D573-04) a. Tensile strength > 50 kgf/cm² b. Elongation > 450% c. Tear strength > 15 kgf/cm² Water Vapor Transmission ASTM E96 Method B <5 Perms Curing Time 12 hours Application Temperature 5°C to 40°C Service Temperature 0°C to 80°C At least 1 year when unopened and damaged Storage condition Packaging 20kg pail	Solar Absorptance	13.1%
(ASTM D573-04) a. Tensile strength b. Elongation c. Tear strength Water Vapor Transmission ASTM E96 Method B Curing Time Application Temperature Service Temperature Self life Storage condition Packaging ASTM D573-04) > 50 kgf/cm² > 450% > 15 kgf/cm² > 12 hours Cyc to 40°C At least 1 year when unopened and damaged Store in a dry cool place 20kg pail	(JIS R 3106)	
a. Tensile strength b. Elongation c. Tear strength ASTM E96 Method B Curing Time Application Temperature Service Temperature Self life Storage condition 2	Aging test at 80°C, 168 Hrs	
b. Elongation c. Tear strength C. Tear strength Solution Tean Smission ASTM E96 Method B Curing Time Application Temperature Service Temperature Self life Storage condition Packaging Storage Storage Storage C. Tear strength Solution Temperature At least 1 year when unopened and damaged Store in a dry cool place 20kg pail	(ASTM D573-04)	
c. Tear strength > 15 kgf/cm ² Water Vapor Transmission ASTM E96 Method B <5 Perms Curing Time 12 hours Application Temperature 5°C to 40°C Service Temperature 0°C to 80°C At least 1 year Self life when unopened and damaged Storage condition Storage condition Packaging 20kg pail	a. Tensile strength	
Water Vapor Transmission ASTM E96 Method B Curing Time 12 hours Application Temperature 5°C to 40°C Service Temperature 0°C to 80°C At least 1 year when unopened and damaged Storage condition Storage condition Packaging Storage 20kg pail	b. Elongation	
ASTM E96 Method B Curing Time Application Temperature Service Temperature Self life Storage condition Packaging Curing Time 12 hours 5°C to 40°C At least 1 year when unopened and damaged Store in a dry cool place 20kg pail	c. Tear strength	$> 15 \text{ kgf/cm}^2$
Curing Time 12 hours Application Temperature 5°C to 40°C Service Temperature 0°C to 80°C At least 1 year When unopened and damaged Storage condition Storage condition Packaging 20kg pail	Water Vapor Transmission	
Application Temperature 5°C to 40°C Service Temperature 0°C to 80°C At least 1 year when unopened and damaged Storage condition Store in a dry cool place Packaging 20kg pail	ASTM E96 Method B	<5 Perms
Service Temperature O°C to 80°C At least 1 year when unopened and damaged Storage condition Storage condition Packaging Service Temperature O°C to 80°C At least 1 year when unopened and damaged Store in a dry cool place 20kg pail	Curing Time	
Self life At least 1 year when unopened and damaged Storage condition Store in a dry cool place Packaging 20kg pail	Application Temperature	5°C to 40°C
Self life when unopened and damaged Storage condition Store in a dry cool place Packaging 20kg pail	Service Temperature	0°C to 80°C
Storage condition Storage condition Store in a dry cool place 20kg pail	Self life	At least 1 year
Storage condition Store in a dry cool place 20kg pail		when unopened
Packaging place 20kg pail		and damaged
Packaging 20kg pail	Storage condition	Store in a dry cool
Packaging		place
200kg drum	Packaging	20kg pail
		200kg drum

Important Notes

- 1. Minimum ambient and substrate temperature is 5°C.
- 2. Never apply more than 1 kg/m² of PENTENS T-200H in one single layer.
- 3. Apply only to clean, sound substrates where surfaces should be well dampened but free of surface water and leaks.
- 4. Thoroughly agitate contents before use.

Instruction for Use

Surface Preparation

Surface must be sound, dry and clean (free of dirt, gravel, pollution, mildew and all foreign material). Do not apply if any rain is imminent. Repair flashings and damaged areas. Cracks and old bitumen joints shall be repaired first. On existing surfaces must be thoroughly cleaned before applying PENTENS T-200H.

Remove all gravel. The main reason of applying gravel on the roof was to protect the old surface from the sun's rays. Removing gravel will greatly reduce the weight load on the roof, and provide a firm surface for the new coating.

Sweep and vacuum or power wash surface to remove dirt and dust. Cut out roof blisters and repair with acrylic embedded in polyester fabric or polymer concrete.

Remove mildew with sodium hypochlorite or other algaecide and rinse with Tack down curled, lifted seams flush with the surface. Fill any other gaps with silicon impregnated latex caulk. Any loose shingles should be gently lifted and glued down with roofing cement.

Application

Substrate should be primed with a 1:3 mixture of PENTENS T-007 and water. Brush on at the approximate rate of 0.3kg/m².

On areas exposed hot drying winds. 2 to 3 thin coats of paint may be more successful than 1 thick coat.

PENTENS T-200H is suggested to apply at least 2 coats. The first coat should be applied in one direction only. If possible the second coat should be applied at right angles to the first. Leave to cure for approximately 2 to 8 hours before applying second coat. PENTENS T-200H can be installed with conventional airless spray equipment, brush or roller.

Fax: +886 2 26681546

Precautions

The best method to assure good penetration of the first coat into the surface is by application with a nap roller. The succeeding coats may be spray or roller applied.

Coverage

- On concrete roofs: 40-50 m²/20 kg/coat
 On façade/vertical: 40-60 m²/20 kg/coat
- Actual coverage may vary depending on substrate texture and porosity.

Cleaning

Tools and equipment can be clean with clean warm water immediately after use. Hardened material can only be mechanically removed.

Safety

PENTENS T-200H is non-toxic. For personal precautions, applicators are recommended to wear gloves and goggles when handling PENTENS T-200H.





Tel: 2525 1682 URL: www.hkpmaterials.com
Fax: 2525 0898 Email: support@hkpmaterials.com

