

# Technical data sheet

TDS-PH052025

## Product Definition

**BITULINE Prima PP300** is a torch-applied bituminous felt reinforced with non-woven polyester mat and modified with APP plastomeric bitumen. **BITULINE Prima PP300** has cold flexibility property of -5 °C. Produced in thickness of 3 mm and **BITULINE Prima PP300** is commercialized bottom and upper surfaces protected by thermo-fusible PE film.

## Where to use and Properties

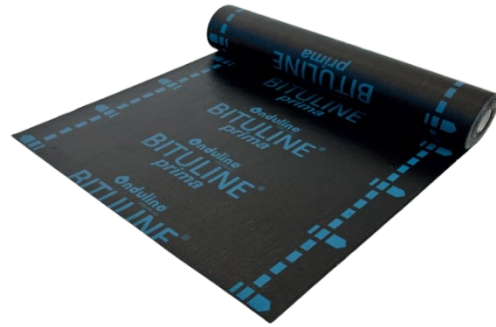
### All Buildings:

- In coatings of flat and sloping roofs (provided that they are covered)
- Under foundation, on curtain and basement floors
- On horizontal / vertical surfaces of terraces and balconies (provided that they are covered)
- Indoors and outdoors
- It is used for waterproofing purposes in wet areas such as bathrooms and kitchens
- In water tanks and swimming pools (provided that they are covered)

### Features:

- Thanks to BITULINE modified bitumen, it maintains its flexibility at very low temperatures and does not crack. At high temperatures, it softens slowly and maintains its form. Therefore, it can be used safely in every climate zone.
- In places where waterproofing will be applied, BITULINE PP300 can be provided resistance up to 5 °C.
- BITULINE Waterproofing System is 100% waterproof, flexible and long lasting.

# BITULINE® PRIMA PP300



## Technical Specifications

Technical Specifications	Method	Unit	Tolerance	Value
Visible defects	TS EN 1850-1	-	-	NONE
Length	TS EN 1848-1	m	min (-0.03)	10
Width	TS EN 1848-1	m	min (-0.02)	1
Straightness	TS EN 1848-1	-	-	PASS
Thickness	TS EN 1849-1	mm	± 0.02	3
Watertightness (meth.B 10 Kpa) (meth. B. 60 kPa)	TS EN 1928	-	-	PASS
Reaction to fire	TS EN 13501-1	CLASS		E
Joint strength	TS EN 12317-1	N/50 mm	±30%	500
Water vapor transmission	TS EN 1931	-	min	20000
Tensile strength (longitudinal/transversal)	TS EN 12311-1	N/50 mm	-25% ; +50%	600 400
Elongation at break (longitudinal/transversal)	TS EN 12311-1	%	(-10; +20)	30 30
Dangerous Substances				NONE
Resistance to impact	TS EN 12691 (meth. A)	mm	min	600
Resistance to static loading	TS EN 12730 ((meth	Kg	min	15
Resistance to tearing	TS EN 12310-1	N	±30%	100
Flexibility at low temperature	TS EN 1109	°C	≤	-5
Flow resistance at elevated temperature	TS EN 1110	°C	≥	100
Determination of peel resistance of joints	TS EN 12316-1	N/50 mm		NPD
External Fire Performance	TS EN 13501-5	CLASS		NPD
Artificial ageing behaviour	TS EN 1296 TS EN 1928 (meth. B 60 kPa)	°C	± 5	NPD
	TS EN 1847 TS EN 1928 (meth. B 60 Kpa)	°C	± 10	NPD
Adhesion of granules	TS EN 12039	%	≤	NPD
Dimensional stability	TS EN 1107-1	%	≤	0.6

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## Bituminous waterproofing membrane

BITULINE® waterproofing membranes, which have many details for accessible and non-accessible roofs and green roofs, are applied in 2 ply with a thickness of at least 3 mm.

### BITULINE® PP300 Application Steps on Pitched wooden roof

1. **BITULINE® PP300** can be applied on to wood and various composite surfaces such as OSB, Plywood, MDF, Plwood, Cemented Chipboard.
2. Any weak parts on the wooden surface should be removed, then the cracks and gaps on the surface should be repaired and made solid and smooth.
3. Vertical corners should be chamfered appropriately, or chamfer tape should be used during application.
4. **BITULINE® PP300** application surface must be cleaned from anti-adhesion substances such as dust, oil, tar, pitch, paint, silicone, curing material, detergent and formwork oils.
5. BITULINE® PRIMER application is not required when applying **BITULINE® PP300** on pitched wooden roofs.
6. **BITULINE® PP300** joints used as the first ply of waterproofing should be overlapped by 10 cm in width and 15 cm in length, heated with a torch and applied with the full bonding method.
7. As the second ply, BITULINE® UV-resistant product group whose upper surface coated with mineral or aluminum, is preferred. It should be applied in the same direction as the first ply and in a way to center the joints of the first ply, overlapping the joints by at least 10 cm, heated with a torch and using the full bonding method.

8. BITULINE® PP300 waterproofing membrane should be applied on all chimney, wall and parapet edges, up to at least 30 cm above the ground level. BITULINE® UV-resistant product group, whose upper surface is coated with mineral or aluminum, should be applied to completely exposed membrane surfaces. Aluminum Z profile batten should be applied to prevent the end points of BITULINE® from being damaged by UV rays. UV resistant mastic or silicone should be applied to the upper part of the aluminum Z profile.

### Application Steps on BITULINE® PP300 Terrace Roof (Accessible)

1. **BITULINE® PP300** application surface must be cleaned from anti-adhesion substances such as dust, oil, tar, pitch, paint, silicone, curing material, detergent and formwork oils.
2. Before applying **BITULINE® PP300**, BITULINE® PRIMER should be applied onto the terrace roof surface where the slope concrete has been poured (3). You can find the details of the application in the BITULINE® PRIMER Product Information Form.
3. Any weak parts on the BITULINE® PRIMER application surface should be removed, and then the cracks and gaps on the surface should be made solid and smooth with a suitable product from the ONDULFIX Repair Mortar product group.
4. Vertical corners should be chamfered appropriately, or chamfer tape should be applied during application.
5. **BITULINE® PP300** joints used as the first ply of waterproofing should be overlapped by 10 cm in width and 15 cm in length, heated with a torch and applied with the full bonding method. (9)
6. As the second ply, BITULINE® UV-resistant product group whose upper surface coated with mineral or aluminum, is preferred. It should be applied in the same direction as the first ply and in a way to center the joints of the first ply, overlapping the joints by at least 10 cm, heated with a torch and using the full bonding method. (10)

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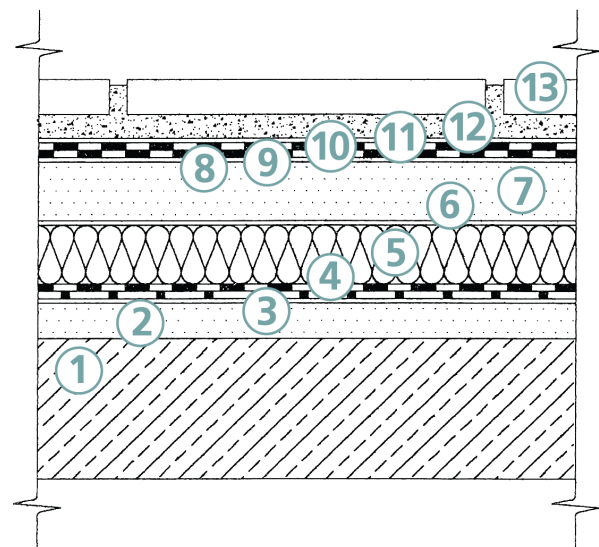
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1. **BITULINE® PP300** should be laid perpendicular to the slope at the lowest points (vertical and horizontal rainwater drains). In places where rain drains are located, the reinforced concrete slab or slope screed is made at least 1cm lower in an area of ~50cm x 50cm, and water accumulation on the roof surface is prevented by 100%, even on very low-slope terrace roofs.
2. After the **BITULINE® PP300** waterproofing membrane application and waterproofing float test are completed, Onduline Geotextile Felt which is at least 250 gr/m<sup>2</sup> weight, is applied with overlapping the joints by 10 cm as a separator layer between **BITULINE® PP300** and the mortar. Mortared tile or ceramic can be applied directly onto the geotextile felt, or ~5 cm thick screed can be poured and tile or ceramic can be applied on the screed by adhesion method. Elastic joint filling materials with UV resistance should be preferred for ceramic joints.
3. **BITULINE® PP300** waterproofing membrane should be applied on all chimney, wall and parapet edges, up to at least 30 cm above the ground level. **BITULINE®** UV-resistant product group, whose upper surface is coated with mineral or aluminum, should be applied to completely exposed membrane surfaces. Aluminum Z profile batten should be applied to prevent the end points of **BITULINE®** from being damaged by UV rays. UV resistant mastic or silicone should be applied to the upper part of the aluminum Z profile.

1. RC slab
2. Leveling screed (if required)
3. Bituline primer
4. Vapour barrier (linear and pointwise adhesion)
5. Heat insulation
6. PE foil
7. Slope concrete
8. Bituline primer
9. First ply Bituline
10. Second ply Bituline
11. Separation layer
12. Mortar
13. Covering



1  
2

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## Application Steps on BITULINE® PP300 Terrace Roof (Non-Accessible)

1. **BITULINE® PP300** application surface must be cleaned from anti-adhesion substances such as dust, oil, tar, pitch, paint, silicone, curing material, detergent and formwork oils.
  2. Before applying **BITULINE® PP300**, **BITULINE® PRIMER** should be applied onto the terrace roof surface where the slope concrete has been poured. You can find the details of the application in the **BITULINE® PRIMER** Product Information Form.
  3. Any weak parts on the **BITULINE® PRIMER** application surface should be removed, and then the cracks and gaps on the surface should be made solid and smooth with a suitable product from the **ONDUFIX** Repair Mortar product group.
  4. Vertical corners should be chamfered appropriately, or chamfer tape should be applied during application.
  5. **BITULINE® PP300** joints used as the first ply of waterproofing should be overlapped by 10 cm in width and 15 cm in length, heated with a torch and applied with the full bonding method.
  6. As the second ply, **BITULINE® UV-resistant** product group whose upper surface coated with mineral or aluminum, is preferred. It should be applied in the same direction as the first ply and in a way to center the joints of the first ply, overlapping the joints by at least 10 cm, heated with a torch and using the full bonding method.
1. **BITULINE® PP300** should be laid perpendicular to the slope at the lowest points (vertical and horizontal rainwater drains). In places where rain drains are located, the reinforced concrete slab or slope screed is made at least 1 cm lower in an area of ~50 cm x 50 cm, and water accumulation on the roof surface is prevented by 100%, even on very low-slope terrace roofs.
  2. If a mineral or aluminum coated product is preferred for the second ply, the application is completed. If the second ply is uncoated, after completing installation and the waterproofing float test, **Onduline Geotextile Felt**, which is at least 250 gr/m<sup>2</sup> in weight, is applied with overlapping the joints by 10 cm as a separator layer between the waterproofing and gravel. The application should be completed by laying stream gravel freely on the geotextile felt, completely covering the geotextile (~10 cm in height).
  3. **BITULINE® PP300** waterproofing membrane should be applied on all chimney, wall, and parapet edges, up to at least 30 cm above the ground level. **BITULINE® UV-resistant** product group, whose upper surface is coated with mineral or aluminum, should be applied to completely exposed membrane surfaces. Aluminum Z profile batten should be applied to prevent the end points of **BITULINE®** from being damaged by UV rays. UV-resistant mastic or silicone should be applied to the upper part of the aluminum Z profile.

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2

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## Application Steps on BITULINE® PP300 Terrace Roof (Non-Accessible)

1. **BITULINE® PP300** application surface must be cleaned from anti-adhesion substances such as dust, oil, tar, pitch, paint, silicone, curing material, detergent, and formwork oils.
2. Before applying **BITULINE® PP300**, **BITULINE® PRIMER** should be applied onto the terrace roof surface where the slope concrete has been poured. You can find the details of the application in the **BITULINE® PRIMER** Product Information Form.
3. Any weak parts on the **BITULINE® PRIMER** application surface should be removed, and then the cracks and gaps on the surface should be made solid and smooth with a suitable product from the **ONDUFIX Repair Mortar** product group.
4. Vertical corners should be chamfered appropriately, or chamfer tape should be applied during application.
5. **BITULINE® PP300** joints used as the first ply of waterproofing should be overlapped by 10 cm in width and 15 cm in length, heated with a torch, and applied with the full bonding method.
6. As the second ply, **BITULINE® UV-resistant** product group whose upper surface is coated with mineral or aluminum is preferred. It should be applied in the same direction as the first ply and in a way to center the joints of the first ply, overlapping the joints by at least 10 cm, heated with a torch, and using the full bonding method.
7. **BITULINE® PP300** should be laid perpendicular to the slope at the lowest points (vertical and horizontal rainwater drains). In places where rain drains are located, the reinforced concrete slab or slope screed is made at least 1 cm lower in an area of ~50 cm x 50 cm, and water accumulation on the roof surface is prevented by 100%, even on very low-slope terrace roofs.
8. After the **BITULINE® PP300** waterproofing membrane application and waterproofing float test are completed, Onduline Geotextile Felt (minimum 250 g/m<sup>2</sup>) is applied with 10 cm joint overlap as a separator between **BITULINE® PP300** and the XPS thermal insulation. XPS should be placed tightly with no gaps.

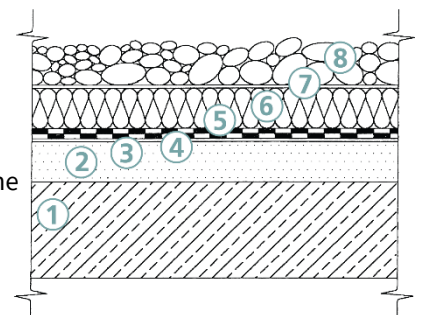
**If an accessible roof is requested**, Onduline Geotextile Felt, which is at least 250 g/m<sup>2</sup> in weight and overlaps by 10 cm, is laid on the XPS. Tile or ceramic can be applied directly onto the geotextile felt, or a ~5 cm thick screed can be poured and the tile or ceramic applied on the screed using the adhesion method.

Elastic joint filling materials with UV resistance should be preferred for ceramic joints. Alternatively, Onduline Geotextile Felt, white in color and weighing at least 150 g/m<sup>2</sup>, is laid on the XPS, overlapping the joints by 10 cm. The application is completed by placing tile mounting wedges of the type and height selected in accordance with the project, on the geotextile felt with axles suitable for the dimensions of the flooring material to be used, and placing concrete tiles or composite wooden tiles freely on the tile mounting wedges. If there will be a concrete tile or composite wooden tile covering on the terrace, Onduline Geotextile Felt, which is white and at least 150 g/m<sup>2</sup> in weight with 10 cm overlap, is laid on the XPS. Tile mounting wedges, selected in accordance with the project, are arranged on the geotextile felt with axles suitable for the dimensions of the floor covering material to be used. The application is completed by placing concrete tiles or composite wooden tiles freely on the tile mounting wedges.

**If an accessible roof is requested**, Onduline Geotextile Felt, which is at least 250 g/m<sup>2</sup> in weight and overlaps by 10 cm, is laid on the XPS. On top of the geotextile felt, stream gravel (~10 cm in height) is freely laid to completely cover the geotextile.

**9- BITULINE® PP300** waterproofing membrane should be applied on all chimney, wall, and parapet edges, up to at least 30 cm above ground level. **BITULINE® UV-resistant** product group, whose upper surface is coated with mineral or aluminum, should be applied to completely exposed membrane surfaces. **Aluminum Z profile batten** should be applied to prevent the end points of **BITULINE®** from being damaged by UV rays. UV-resistant mastic or silicone should be applied to the upper part of the aluminum Z profile.

1. RC slab
2. Slope concrete
3. Bituline primer
4. First ply Bituline
5. Second ply Bituline
6. Heat insulation
7. Filter layer
8. Crushed stone



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## BITULINE® PP300 Application Steps in Foundations

1. The foundation pit should be sloped in accordance with the project in a way to prevent landslides. If it is not possible to open the foundation pit on a slope due to the adjacent layout construction, the area where **BITULINE® PP300** will be applied should be constructed separately from the shoring system and **BITULINE® PP300** should be applied on the inner surfaces of this area.
2. At least 10 cm thick lean concrete should be poured on the ground and a wall should be built with reinforced concrete, plastered brick, briquette, etc., at the foundation height.
3. Complementary sealing products that will maintain the water impermeability of **BITULINE® PP300** should be used at points where the application surface is interrupted, such as movement joints, transitions, and penetration points where different building elements and materials meet.
4. **BITULINE® PP300** application surface must be cleaned from anti-adhesion substances such as dust, oil, tar, pitch, paint, silicone, curing material, detergent, and formwork oils.
5. In foundations, before **BITULINE® PP300** application, **BITULINE® PRIMER** should be applied on lean concrete. You can find the details of the application in the **BITULINE® PRIMER** Product Information Form.
6. Any weak parts on the **BITULINE® PRIMER** application surface should be removed, and then the cracks and gaps on the surface should be made solid and smooth with a suitable product from the **ONDUFIX Repair Mortar** product group.
7. Vertical corners should be chamfered appropriately, or chamfer tape should be applied during application.
8. **BITULINE® PP300** joints used as the first ply of waterproofing should be overlapped by 10 cm in width and 15 cm in length, heated with a torch, and applied with the full bonding method.

9. The second layer of **BITULINE® PP300** should be applied in the same direction as the first layer, centering the joints of the first layer, overlapping the joints by 10 cm in width and 15 cm in length, heated with a torch, and applied with the full bonding method.
10. In order to not damage **BITULINE® PP300** application before the foundation concrete is poured, Onduline Geotextile Felt with a density of at least 250 gr/m<sup>2</sup> should be laid on horizontal surfaces. The wall facing the inner surface of the foundation should be protected with EPS or XPS with a density of at least 30 kg/m<sup>3</sup> and a compressive strength of 200 kPa before placing the foundation reinforcement. To avoid damage, the surface of **BITULINE® PP300** remaining on the basement tanking wall should be covered with protection concrete until the application continues. After the foundation and curtain wall concrete is poured, and the application is to be resumed, the protection concrete applied on **BITULINE® PP300** should be broken and the surface thoroughly cleaned with a brush. **BITULINE® PP300**, after the protection concrete is removed, should be overlapped onto the second layer of **BITULINE® PP300** coming from the curtain wall by 10 cm in width and 15 cm in length. It is then heated with a torch and applied using the full adhesion method.

## BITULINE® PP300 Application Steps in Foundations

1. **BITULINE® PP300** application surface must be cleaned from anti-adhesion substances such as dust, oil, tar, pitch, paint, silicone, curing material, detergent, and formwork oils.
2. Any weak parts on the **BITULINE® PRIMER** application surface should be removed. Cracks and gaps should be repaired using a suitable product from the **ONDUFIX Repair Mortar** group.
3. Vertical corners should be chamfered appropriately or chamfer tape should be applied.
4. After all repair and cleaning procedures are completed and surfaces are dry, **BITULINE® PRIMER** can be applied. Refer to the **BITULINE® PRIMER** Product Information Form.
5. The protection concrete on the curtain wall should be broken and cleaned thoroughly with a brush.
6. **BITULINE® PP300** joints used as the first ply of waterproofing should be overlapped by 10 cm in width and 15 cm in length, heated with a torch, and applied using the full bonding method.

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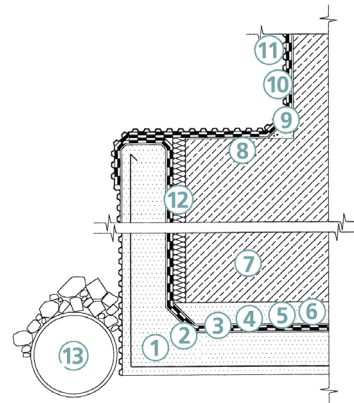
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7. The second layer of **BITULINE® PP300** should be applied in the same direction as the first layer, centering the joints of the first layer, overlapping the joints by 10 cm in width and 15 cm in length, heated with a torch and applied with the full bonding method. The upper part of **BITULINE® PP300**, cut into 2.5 meters length, must be melted and adhered to the reinforced concrete curtain. Then, the lower part is opened and melted, ensuring that **BITULINE® PP300** adheres to the entire surface without gaps (10).
8. At the transition points of pipes, cables and other elements, 2 plies of **BITULINE® PP300** should be compressed between steel flanges to ensure tightness.
9. On the plaster cleaned **BITULINE® PP300** on the foundation wall, **BITULINE® PP300** joints coming from the curtain wall are overlapped 10 cm in width and 15 cm in length as the second layer. The waterproofing is completed by heating it with a torch and applying it with full bonding method.
10. **BITULINE® PP300** on foundation curtain walls should be continued at least 30 cm above the ground level. In the section above the ground, mineral or aluminum coated **BITULINE®** should be applied on the membrane surfaces that are completely exposed from 10 cm below the ground level. In order to prevent the end points of **BITULINE®** from being damaged by UV rays, aluminium Z profile batten fix should be applied. UV resistant mastic or silicone should be applied on the top of the aluminium Z profile.
11. After the application of waterproofing is completed, protection against uncontrolled backfilling should be provided with a product from the **FONDALINE®** product group with suitable compressive strength.
12. **FONDALINE®** should be mechanically fixed to the curtain wall at the upper limit of the insulation and an aluminium Z profile batten fix should be applied to prevent the end points of the cover from being damaged by UV rays. UV resistant mastic or silicone should be applied to the upper part of the aluminium Z profile.



1. Lean concrete
2. Bituline primer
3. First ply Bituline
4. Second ply Bituline
5. Separation felt
6. Protection concrete
7. RC slab
8. Bituline Primer
9. First ply Bituline
10. Second ply Bituline
11. Fondaline
12. Heat insulation
13. Drainage pipe

1  
2

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## General Warnings

1. Application should not be made at temperatures below +5°C and above +35°C.
2. The humidity rate of the ground where BITULINE® PP300 will be applied should be at most 8%.
3. On flat roofs or roofs with a slope of up to 5% with a protection layer on the waterproofing, application can be made using two layers of BITULINE® PP300 or the first layer of BITULINE® PG300 and the second layer of BITULINE® PP300.
4. For applications in cold weather, BITULINE® PP300s should be stored in closed warehouses with temperatures above +5°C at the application site for 24 hours and then applied.
5. BITULINE® PP300 rolls should be opened slowly and carefully in order to align them during application.
6. BITULINE® PP300 should not be damaged during application and applications should be carried out by certified and experienced application teams.
7. Applied BITULINE® PP300 rolls must be protected against mechanical effects such as impact, cutting and scratching.
8. Application should not be made in rainy weather as full adhesion cannot be achieved due to increased surface humidity.

## Safety Rules

1. The team that will apply BITULINE® PP300 must supply appropriate materials for occupational safety. During the application, heat-resistant shoes, gloves, goggles, leather armbands and a torch can be used. All personal protective occupational safety measures must be taken.
2. To prevent the possibility of fire due to the use of torches during application, a fire extinguisher should be kept close to the application area.
3. In sloping roof applications, life rope must be used.
4. In sloping roof applications, there should be no gap between the roofing boards during application to prevent the risk of falling.
5. Parts of the roof that pose a risk of falling should be painted with warning paint or protective measures should be taken around them.

## Tools

Roofing torch, propane cylinder, connecting hoses with regulator, trowel, knife and gloves.

## Packaging

Rolls/pallet: 30 rolls

Qty/pallet: 300 m<sup>2</sup>

Weight/pallet: ±1185 kg

## Storage

Protect against direct sunlight. Original packages should be transported and stacked upright, pallets should be stored in a closed moisture-free environment without stacking.

Product	Consumption
BITULINE® PP300	1,13 m <sup>2</sup> / 1 m <sup>2</sup> ~BITULINE® PP300. 10 cm width and 15 cm longitudinal overlap should be applied horizontally and vertically. As the number of overlaps increase, consumption will increase.

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2

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