SQUAREFORM™ *benchtops*

Laminex® Squareform™

The Laminex® Squareform™ range gives you the beautiful modern look of stone slab, with the practicality and economy of laminate. The radius of the moulded edge can be postformed to 5mm (MD) providing a square look to the profile. The use of high-pressure laminate on the surface of the bench top provides a hardwearing and durable decorative surface.

APPLICATIONS

Laminex Squareform is designed for applications such as kitchen worktops, countertops, bathroom vanities and laundry bench tops where a durable decorative surface is required.

Product Characteristics	
Sizes	3600 x 1500mm 3600 x 1200mm* Refer to Laminex HPL Availability Guide for cut sheets
Thickness	0.6mm nominal (-0.07 + 0.0mm)
Weight	0.7kg/m^2 approx.
Finish	Natural
Colours and Pattern Range	Refer to Laminex HPL Availability Guide

*Selected decors only

Fire Tests *		
(Typically achieved when tested to AS/NZS 1530.3)		
Indices	Result	Range
Ignitability	0	0-20
Spread of Flame	0	0-10
Heat Evolved	0	0-10
Smoke Developed	4	0-10

Cone Calorimeter AS/NZS 3837 (Irradiance of 50kW/m^2)		
Classification	Result*	Range
Group Number	1	1-3
Average Specific Extinction Area	44.9	m^2/kg

*Laminate Unadhered

PROPERTIES

Laminex Squareform is a high-pressure laminate. The surface hardness of high-pressure laminate provides resistance to surface wear and scratching under normal conditions of use. High-pressure laminate when adhered to a particleboard or MDF surface using a durable adhesive, ensures surface bond soundness. The use of moisture resistant particleboard or MDF for substrate ensures structural integrity and added protection against high humidity or occasional wetting.

Properties (AS/NZS 2924.1)	
Property	Typical Values
Resistance to Surface Wear	Initial wear not less than 150 cycles. Average wear not less than 350 cycles
Resistance to Scratching	⩾ 2.0 N
Resistance to Dry Heat at 180°C	No deterioration other than slight loss of gloss/colour
Resistance to Steam	No deterioration other than slight loss of gloss/colour
Resistance to Staining	Reagents Groups 1 and 2 = No visible change. Reagents Groups 3 and 4 = Moderate change of gloss and/or colour
Resistance to colour change in Artificial Light*	Not more than slight colour change in Xenon arc light (minimum) 6 on Blue Wool
Resistance to Cigarette Burns	No deterioration other than moderate change in gloss and moderate brown staining

*Laminex Squareform has good colour retention and dimensional stability in normal interior applications. However prolonged exposure to sunlight may cause shrinkage and/or some change in colour. Laminex Squareform is not recommended for exterior applications or interior applications with prolonged exposure to direct sunlight.

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Laminex®
Inspire your space

Laminex® HPL

Laminex® HPL is a specially formulated laminate which may be readily heatformed down to a radius of 10mm without cracking or blistering. It will form around internal and external bends in any direction down to 10mm radius with no loss of durability or appearance.

APPLICATIONS

Laminex® HPL is widely used for countertops, vanity units, partitions, store fixtures, sills, bars, benchtops, door and drawer fronts and other applications where good appearance, durability and resistance to stain and heat from ordinary sources are required.

Product Characteristics	
Sizes	3600 x 1500mm 3600 x 1200mm* Refer to Laminex HPL Availability Guide for cut sheets
Thickness	0.7mm (nominal)
Weight	1.0kg/m ^{2} approx.
Finish	Natural
Colours and Pattern Range	Refer to Laminex HPL Availability Guides

*Selected decors only

Fire Tests		
(Typically achieved when tested to AS/NZS 1530.3)		
Indices	Result	Range
Ignitability	10	0-20
Spread of Flame	9	0-10
Heat Evolved	5	0-10
Smoke Developed	5	0-10
Cone Calorimeter AS/NZS 3837 (Irradiance of 50kW/m ^{2})		
Classification	Result*	Range
Group Number	1	1-3
Average Specific Extinction Area	105.5	m^2/kg

*Laminate Unadhered.

Laminex HPL conforms with AS/NZS 2924.1 for high-pressure decorative laminates.

Properties (AS/NZS 2924.1)	
Property	Typical Values
Resistance to Surface Wear	Initial wear not less than 150 cycles. Average wear not less than 350 cycles.
Resistance to Immersion in Boiling Water	No deterioration other than slight loss of gloss. Gain in weight of no more than 14%
Resistance to Dry Heat at 180°C	No deterioration other than slight loss of gloss/colour
Resistance to Steam	Moderate change of gloss and/or colour
Dimensional Stability	Dimensional change of not more than 0.7% with grain and 1.2% across grain
Resistance to Scratching	⩾ 0.5 N
Resistance to Staining	Reagents Groups 1 and 2 = No visible change. Reagents Groups 3 and 4 = Moderate change of gloss and/or colour
Resistance to colour change in Artificial Light*	Not more than slight colour change in Xenon arc light (minimum) 6 on Blue Wool
Resistance to Cigarette Burns	No deterioration other than moderate change in gloss and moderate brown staining

* Laminex HPL has good colour retention and dimensional stability in normal interior applications. However, prolonged exposure to sunlight may cause shrinkage and/or some change in colour. Laminex HPL is therefore not recommended for external applications or interior applications with prolonged exposure to direct sunlight.

WHEN SPECIFYING

Materials shall be Laminex HPL as manufactured by The Laminex Group. Colours and/or patterns shall be ..... in ..... finish.

Laminex® DiamondGloss® is a high gloss laminate with mark and scuff resistance superior to traditional laminates. It may be readily heat formed down to a radius of 8mm in the machine direction (MD), using special equipment without loss of durability or appearance.

APPLICATIONS*

Laminex® DiamondGloss® is widely used for countertops, bench tops, vanity units, bars, store fixtures and other applications where good appearance, resistance to marking and scuffing, and resistance to stain and heat from ordinary sources is required. Laminex (Polar White) DiamondGloss can also be used for whiteboards provided instructions contained in the Laminex Factsheet - Care & Maintenance are followed.

Product Characteristics	
Sizes	3595 x 1395mm Refer to Laminex HPL Availability Guide for cut sheet sizes
Thickness	0.7mm (nominal) (-0.1+ 0.1mm)
Weight	1.0kg/m^2 approx.
Finish	High Gloss
Colours and Pattern Range	Refer to Laminex HPL Availability Guide

FIRE PERFORMANCE

The Group Number Classifications are generated from tests carried out and data recorded in accordance with the test procedure described in ISO 5660 2002 – Reaction to Fire test – Part 1: Heat Release & Part 2: Smoke Production Rate, for the purposes of determination of the Group Classification in accordance with the New Zealand Building Code Verification Method C/VM2 Appendix A

While full testing has not been completed on these products at this point in time, indicative testing of gloss laminates has indicated that the Group Number Classification for DiamondGloss is most likely to be 3

Please contact Laminex NZ to confirm if a full test report is available.

Properties (AS/NZS 2924.1)	
Property	Typical Values
Resistance to Surface Wear	Initial wear not less than 150 cycles. Average wear not less than 350 cycles
Resistance to Immersion in Boiling Water	No more than a marked change of gloss and/or colour. Gain on weight of not more than 19%
Resistance to Dry Heat at 180°C	No more than a moderate change of gloss and/or colour
Resistance to Steam	Marked change of gloss and/or colour
Dimensional Stability	Dimensional change of not more than 0.7% with grain and 1.2% across grain
Resistance to Staining	Reagants Groups 1 and 2 = no visible change Reagants Groups 3 and 4 = no more than a moderate change of gloss/ colour
Resistance to Colour Change in Artificial Light*	Not more than slight colour change in Xenon arc light Minimum 6 on Blue Wool Scale
Resistance to Cigarette Burns	No deterioration other than moderate change in gloss and/or moderate brown staining

* Laminex DiamondGloss laminate has good colour retention and dimensional stability in normal interior applications. However, prolonged exposure to sunlight may cause shrinkage and/or some change in colour. Laminex DiamondGloss laminate is therefore not recommended for external applications or interior applications with prolonged exposure to direct sunlight.

SCUFF RESISTANCE

More than 95% gloss retention after being scrubbed with a 3M Scotch- Brite™ Heavy Duty scouring pad attached to a Sheen Model 903 Wet Abrasion Scrub Tester, using 800 gram applied weight and 30 scrubs.

WHEN SPECIFYING

Materials shall be Laminex DiamondGloss laminate as supplied by Laminex New Zealand. Colours and/or patterns shall be .....

INNOVATIONS®

Laminex ® Innovations ® Metallics ™

Laminex ® Innovations ® Metallics ™ are high-pressure laminates manufactured with genuine decorative metallic foils.

The surface of these products is coated with a protective lacquer similar to a good quality timber lacquer.

APPLICATIONS

Laminex Innovations Metallics are ideal for walls, doors, feature panelling, room dividers, exhibition stands and shopfitting (displays, stands, etc.).

Other uses include fireplace and kitchen hoods, lift linings and many other areas where a metallic look is desired.

Metallic finishes are recommended for light duty interior applications only. They are not recommended for heavy usage areas such as worktops, bars, tables, kitchen splashbacks or kick boards. Laminex Innovations Metallicsare not heat formable.

Product Characteristics	
Sizes	2400 x 1200mm
Thickness	0.8 – 1.3mm
Weight	1.5kg/m ^{2} approx. (1mm)

Fire Tests

Typically achieved when tested to Calorimeter, AS/NZS 3837 (Irradiance of 50kW/m ^{2})

Classification	Result*	Unit/ Range
Group Number	1	1-3
Average Specific Extinction Area	33.5	m^2/kg

*0.8mm Laminate unadhered

WHEN SPECIFYING

Materials shall be Laminex Innovations Metallics laminate as supplied by The Laminex Group. Colour/Finish shall be .....

CARE & MAINTENANCE

Caution

Laminex Innovations Metallics are intended for interior use in vertical decorative applications. The lacquered surface of Laminex Innovations Metallics has similar properties to a high quality wood lacquer, thus the surface could be damaged by hard objects and some solvents. The metallic surfaces have low resistance to impacts and low resistance to abrasions.

Avoid the use of solvents for cleaning purposes. Any spillage of liquids should be removed as soon as possible. Avoid the use of abrasive cleaners, even those in liquid form.

Laminex Innovations Metallicsshould only be cleaned with a soft, moist cloth or moist chamois leather and then dried with a soft, dry cloth. A mild cleaning agent such as glass cleaner can be used to remove smudges and smears.

Do not place hot objects on the surface.

Laminex Innovations Metallics laminates are not recommended for use in areas of high humidity such as bathrooms or laundries as exposure to moisture for prolonged periods can cause corrosion of the metallic surface and/or delamination. Protect from strong, direct sunlight as continuous exposure may casue discolouration or fading to the surface over time.

SITE WORK NOTES

Laminex Innovations Metallics come protected with a plastic film that should be left attached while the laminate is being processed. The plastic film should not be exposed to direct sunlight as it may degrade making removal more difficult and the film should be removed within 6 months of receiving the laminate. Ensure that checks for colour, colour uniformity and surface defects are performed before the job is started.

Use laminate from one production batch for a job as small variations in appearance can occur batch to batch due to the production process of the metallic foils.

Laminates should be stored horizontally. If this is not possible, it is recommended to store the sheets propped up on their long edge against a wall but fully supported at an 80 degree angle. Condition for at least 48 hours in the same environment as the substrate.

When processing, ensure that the adjoining sheets are running in the same orientation otherwise variations in appearance may occur.

Laminex Innovations Metallics can be sawn, drilled and milled like standard high pressure laminates. It is advisable to use carbide-tipped cutting tools. When cutting, the decorative surface should always face upwards.

Laminex Innovations Metallics should be bonded to Particleboard or MDF using Contact Adhesives or Cross-Linking PVA adhesives. Laminate should be fully supported when glued.

Do not bond directly to plaster, plasterboard or concrete. If heating adhesives the temperature should not exceed 60 °C (140 °F). Two component epoxide glues and polyurethane adhesives can also be used but care must be taken before they harden. Condensation resin glues such as urea are not recommended as the acid releasd during hardening can adversely affect the metallic foil.

When pressing the laminate to a substrate, a thin protective soft layer (eg. paper) should be placed on top of the metallic surface. Avoid excess glue coming in contact with the unprotected matallic surface. Use only sufficient pressure to ensure a good bond.

During cutting and machining a slight buring may occur on the new edge. This can be removed by careful use of a fine file.

Note

This technical data does not apply to Brushed Stainless Steel. For this product refer to the Laminex Innovations Brushed Stainless Steel Technical Data Sheet.

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CHEMICAL RESISTANT

High Pressure Laminates

LAMINEX® CHEMICAL RESISTANT SURFACES

Laminex® Chemical Resistant Surfaces are a high-pressure decorative laminate range manufactured to have improved chemical, stain and abrasion resistance. It will form around internal and external bends to a 15mm radius in the longitudinal direction without cracking or blistering.

APPLICATIONS

Laminex® Chemical Resistant Surfaces are unaffected by many solvents, dyes, alkalies, acids and other chemicals. It is an ideal surfacing material for laboratories, hospitals, schools and factories where resistance to chemical attack and durability is required. The rounded edges eliminate joins or seams which may permit chemical penetration into the edges.

Product Characteristics	
Sizes	3600 x 1500mm
Thickness	0.7mm (nominal)
Weight:	1.0kg/m ^{2} approx.
Finish	Natural
Colour & pattern range	Refer to Laminex HPL availability guide

Fire Tests		
Cone Calorimeter AS/NZS 3837:1998 (Irradiance of 50kW/m2)		
Classification	Result*	Unit/ Range
Group Number	2	1-3
Average Specific Extinction Area	97.3	m^2 / kg

*Laminate unadhered

Laminex® Chemical Resistant Surfaces conforms with AS/NZS 2924.1 for high pressure decorative laminates.

Properties (AS/NZS 2924.1)	
Property	Requirement
Resistance to Surface Wear	Initial wear not less than 150 cycles. Average wear not less than 350 cycles.
Resistance to Immersion in Boiling Water	Moderate loss of gloss and/or colour. Gain in weight of not more than 18%
Resistance to Dry Heat at 180°C	No deterioration other than slight loss of gloss/ colour
Resistance to Steam	Moderate change of gloss and/or colour
Dimensional Stability	Dimensional change of not more than 0.7% with grain and 1.2% across grain
Resistance to Staining	Reagents Groups 1 and 2 = No visible change. Reagents Groups 3 and 4 = Slight change of colour/gloss (see chemical list for selected reagents)
Resistance to Colour Change in Artificial Light*	Not more than slight change in Xenon arc light. Grey scale:> 4 at Blue Wool Scale:6
Resistance to Cigarette Burns:	No deteriotation other than moderate change in gloss and moderate brown staining.

* Laminex Chemical Resistant Surfaces have good colour retention and dimensional stability in normal interior applications. However, prolonged exposure to sunlight may cause shrinkage and/or some change in colour. Laminex Chemical Resistant Surfaces are therefore not recommended for external applications or interior applications with prolonged exposure to direct sunlight.

WHEN SPECIFYING

Surfacing shall be Laminex Chemical Resistant Surfaces as manufactured by The Laminex Group. Colours and/or patterns shall be ..... in ..... finish.

PROCESSING

Board Substrate

Bend Profile

Laminex Chemical Resistant Surfaces must be fully supported when glued down.Keep joins away from sink areas. Do not bond directly to plaster, plasterboard or concrete. The correct profile on particle board or medium density fibreboard can be obtained by using specially shaped router blades with a radius not less than 15mm.

BEND TIME

The bend time can be approximated by heating the area to be bent to the required bending temperature of 163°C at a heat up time to Tempilaq melt of around 30 seconds. Allow a further 10 seconds for the core material to reach temperature, then make the bend.

EXTENDED DROP-FRONT BENCHTOPS

Some specifications require the fabrication of extended drop-down front edges usually between 200mm and 250mm deep. It is therefore important to be aware of the formula required to achieve this result. Details of the mathematical specification for 16mm and 33mm thickness benchtops are as follows:

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