A-1010 Bio-Seal Finishing Compound

A-2020 Structural Methacrylate Adhesive

A-3030 Acryloyl Panel Seam Adhesive

A-4040 Acrylic Sealant

A-5050 Acryloyl Surface Repair Kit

A-1010 Bio-Seal and Acryloyl paneling | PC3 Laboratory

Arcoplast A-1010 Bio-Seal sealant finishing compound

Direct attach using A-2020 structural adhesive

Bio-Seal® and Acryloyl® Reg. U.S Pat. & T.M. Off.

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introduction

Corner barrier, direct attach using : A-2020 adhesive & A-1010 Bio-Seal

Over 35 years of development, Arcoplasts new science of high containment primary barrier surfaces and penetration systems, have endured the work loads and traffic inside many industrial and research laboratory facilities; up to BSL 4.

Designed to be assembled on site, the Arcoplast System consists of panels, recessed hatches, face-plates, VLADS, splines, sealants, adhesives and finishing compounds. With these few items a single membrane primary barrier can be created to the highest standard; anywhere in the world.

How the Arcoplast System interfaces with surface or recessed devices, the various penetration and direct attachment systems, are the answer to many of the challenges architects, engineers and draftsmen face when designing and building a controlled environment or high containment facility.

Arcoplast recessed penetration hatch, installation used A-2020 adhesives and A-1010 Bio-Seal

Mechanically fastened with screws and A-1010 Bio-Seal

G3 Bio-Seal A-1010

2 in 1 Sealant finishing compound

Item	Bio-Seal A-1010
Color	Clear / white
Cartridge : Twin unit	13.5 oz / 400ml
Mix Ratio 1:1	Part A&B
Static Mixer	MC 10-24
Packaging	Sealed foil pack
Standard carton	12x Cartridges
Shipping	Not regulated

G4 A-2020

Structural adhesive

Item	A-2020
Color	Amber
Cartridge : Twin unit	13.5 oz / 400ml
Mix Ratio 1:1	Part A&B
Static Mixer	Quadro MFQ 8.7-24
Packaging	Sealed plastic pouch
Standard carton	10x Cartridges
Shipping	UN1133 – Class 3

G5 A-3030

Seam adhesive

Item	A-3030
Color	White
Cartridge : Twin unit	8.5 oz / 250ml
Mix Ratio 1:10	Part A&B
Static Mixer	Quadro MFQ 8.7-24
Packaging	Sealed plastic pouch
Standard carton	10x Cartridges
Shipping	UN1133 – Class 3

G6 A-4040

Acrylic sealant

Item	A-4040
Color	Stainless
Cartridge : Twin unit	13.5 oz / 400ml
Mix Ratio 1:1	Part A&B
Static Mixer	Quadro MFQ 8.7-24
Packaging	Sealed plastic pouch
Standard carton	10x Cartridges
Shipping	UN1133 – Class 3

G7 A-5050

Surface repair kit

Item	A-5050
Color	White
Cartridge : Twin unit	2.5 oz / 50ml
Mix Ratio 1:10	Part A&B
Static Mixer	MBQX 05024
Packaging	Sealed plastic pouch
Standard carton	10x Cartridges
Shipping	UN1133 – Class 3

Disclaimer : Bio-Seal is not a structural product, & is not designed to address any structural issues a building may have or there part of.

welcome to the Arcoplast System

PC3 Lab

PC3 Lab

A-1010 Bio-Seal®

G1

Safety Data Sheet	Please go to the website before using any Arcoplast product & download the SDS sheets

Application : caulking guns 400ml	Battery powered gun Manual gun Pneumatic gun	Cox 83002 Mixpac DM-400 Mixpac DP-400-85-01
Application mix ratio	A to B by volume 1:1	total volume 400 ml
Application working humidity range	40% maintained and below	
Application working temperature range	60 - 80 °F | 15.56 - 26.67 °C	
Application working time frame	45 minutes	
Cure time touch dry	12 hours	
Cured time 100% set	72 hours | 3 x days	
Clean up	Isopropyl alcohol	
Flash point	200°F | 93°C	
Storage life time	6 months from date of shipment stored at 50 - 80°F | 10 - 27°C	

Dual cartridges part A & B		Translucent paste (part A)	White paste (part B)
Density	77 °F / 21 °C	9.64 - 10.04 lbs/gal | 115-1203 kgs/m^3	9.9 - 10.2 lbs/gal | 1186 - 1222 kgs/m^3
Viscosity	77 °F / 21 °C	45,000 - 160,000	130,000 - 230,000

A-1010 Bio-Seal physical properties test results

Result	Test	Description
Pass	21 CFR 177.2600	Determination of extractive residue. US FDA test
0.21%	ASTM D570	Moisture absorption
199%	ASTM D882	% Elongation
2100 psi	ASTM D882	Tensile strength
66	Test	Shore D hardness
1531 psi	ASTM 882	Young's modulus (elastic)

Tooling
Tooling is recommended immediately after application to ensure uniformed contact on both sides of the joint area. Always use a smooth continuous pressure to obtain clean lines.

Tip : Practice before you begin.

Sealant cartridge
Two cartridges joined together : Cartridge A 200ml, Cartridge B 200 ml. Bio-Seal is automatically mixed to the correct ratio of 1:1 when using the recommended dispensing system with a static mixer.

Arcoplast - Surface preparation
Prior to application, remove all foreign matter and contaminants, such as surface dirt, dust, oil and loose particles from all interface materials and components. Clean the surface using a clean cloth dampened with isopropyl alcohol.

Application - Bio-Seal A-1010
Critical to the performance are the correct environmental room conditions : Temperature and humidity range are critical.

Setting time
Application and tooling for a 1/4 inch / (6 mm) diameter bead has an approximate working time of 45 minutes at 70°F / 21.1 °C

Moisture sensitive
If the cartridge is not fully dispensed, keep the current static mixer dispense tip attached to the cartridge until the next application, then before using replace with a new mixer dispense tip.

For industrial and commercial use only
Must be applied by trained skilled personnel. Not for consumer use.

A-2020 Adhesive

G2

Safety Data Sheet	Please go to the website before using any Arcoplast product & download the SDS sheets

Application : caulking guns 400ml	Battery powered gun Manual gun Pneumatic gun	Cox 83002 Mixpac DM-400 Mixpac DP-400-85-01
Application mix ratio	A to B by volume 1:1	total volume 400 ml
Application working humidity range	40% maintained and below	
Application working temperature range	60 - 80 °F | 15.56 - 26.67 °C	
Application working time frame	30 - 50 minutes 75°F | 24°C	
Fixture time	100 to 150 minutes 75°F | 24°C	
Cured time 100% set	4 hours	
Clean up	Isopropyl alcohol	
Flash point	51°F | 11°C	
Storage life time	12 months from date of shipment stored at 50 - 70°F | 10 - 21°C	

Temperatures	Translucent paste (part A)	Amber paste (part B)
Density 77 °F / 21 °C	8.2 lbs/gal | 3.71 kgs/m^3	8.0 lbs/gal | 3.6 kgs/m^3
Viscosity 77 °F / 21 °C	100,000 - 150,000	100,000 - 150,000

Color x 1	Amber
VOC's 1000gram	39 grams of VOC / Liter of material
Gloss finish	Consistent viscosity
Low shrinkage	Not cured by solvent evaporation, therefore has minimal shrinkage
Non-sag	Application to vertical surfaces is not an issue
Non porous	Does not encourage bacterial growth. Impervious to moisture
Gap filling capability	0.25 inches | 6mm
Odor	Slight odor during curing process
Classification	Low VOC construction adhesive

Application
Begin by choosing the appropriate VHB tape.
For the 1.5mm VHB tape run a 9.5 mm continuous bead
For the 3 mm VHB tape run a 12.5 mm continuous bead
Run all A-2020 adhesive beads parallel to the tape.

Tip : Work in a well ventilated space.

A-2020 Methacrylate Structural Adhesive cartridge
Two cartridges joined together : Cartridge A 200ml, Cartridge B 200 ml. A-2020 is automatically mixed to the correct ratio of 1:1 when using the recommended dispensing system with a static mixer.

Arcoplast - Surface preparation
Prior to application, remove all foreign matter and contaminants, such as surface dirt, dust, oil and loose particles from all interface materials and components. Clean the surface using a clean cloth dampened with isopropyl alcohol mixed with 50% water.

Structural adhesive A-2020 Application
Critical to the performance are the correct environmental room conditions : Temperature below 60° F will increase cure and fixture time.

Setting time
The working time for a 1/2 inch / (12.5 mm) diameter bead at 70°F / 21.1 °C is approximately 45 minutes.

Dispensing and handling
If the cartridge is not fully dispensed, keep the current static mixer dispense tip attached to the cartridge until the next application, then before using replace with a new mixer dispense tip.

For industrial and commercial use only
Must be applied by trained skilled personnel. Not for consumer use.

simple clean effective

the new science of direct attach

High containment pass-through penetrations for laboratory plant equipment, amenities, and the Arcoplast System of direct attachment using adhesives and sealants, bring into play the complex science of bonding and sealing together very different materials.

G8 Lap Shear tests A-1010 Bio-Seal, capacity to adhere to various materials

Material	Acryloyl panel	GFRP panel	Galvanized steel	Stainless Steel
Epoxy	837 psi	995.9 psi	1080.5 psi	1164.2 psi
MMA	1202.3 psi	1077.1 psi	681.1 psi	477.3 psi
Urethane	721.1 psi	919.9 psi	624.7 psi	686.8 psi
Acryloyl panel	1975.1 psi	-	721.6 psi	849.2 psi
GFRP panel	-	1102.8 psi	713.8 psi	728.4 psi

Note : Standard industry working strength for wall panel adhesion is in the range of 200 psi

Direct attach A-2020 structural adhesive | Acryloyl : 1256 psi

A-1010 Bio-Seal bonding stainless steel to Acryloyl 12.5mm paneling : 849.2 psi

A-1010 Bio-Seal produces an antimicrobial seal

Acryloyl : 1975.1 psi

A-1010 Bio-Seal. Good house keeping seal, wall panel to termination strip

Acryloyl : 721.6 psi

the new Science of adhesives & sealants

Direct attachment

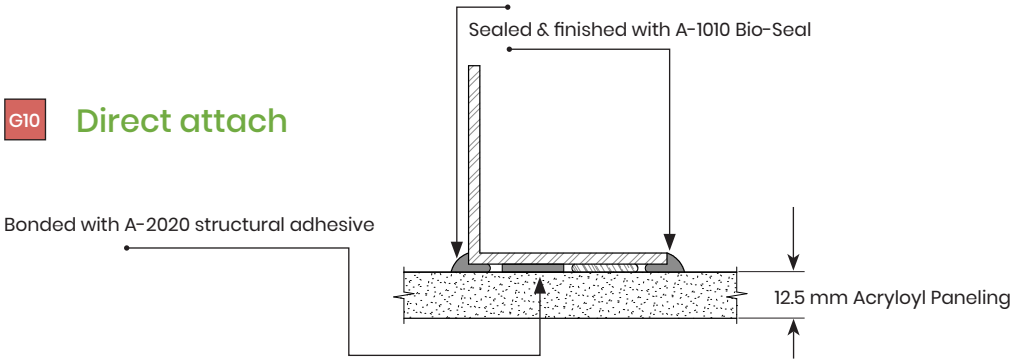
Arcoplasts direct-attach system is a process where fixtures are joined to Arcoplast wall and ceiling panels without screws or fasteners, resulting in no unnecessary penetrations.

To achieve this the 2 in 1 sealant and finishing compound A-1010 Bio-Seal and the Structural Adhesive A-2020 chemically weld the fixture to the Arcoplast paneling.

Evident in the Lap Shear tests described in tables G8 & G9 is the capacity of A-1010 and A-2020 to non-discriminately bond materials together with impressive results.

It is this science that makes possible a whole new tool box of possibilities for design and layout of the modern laboratory and high containment facility.

G10 Direct attach

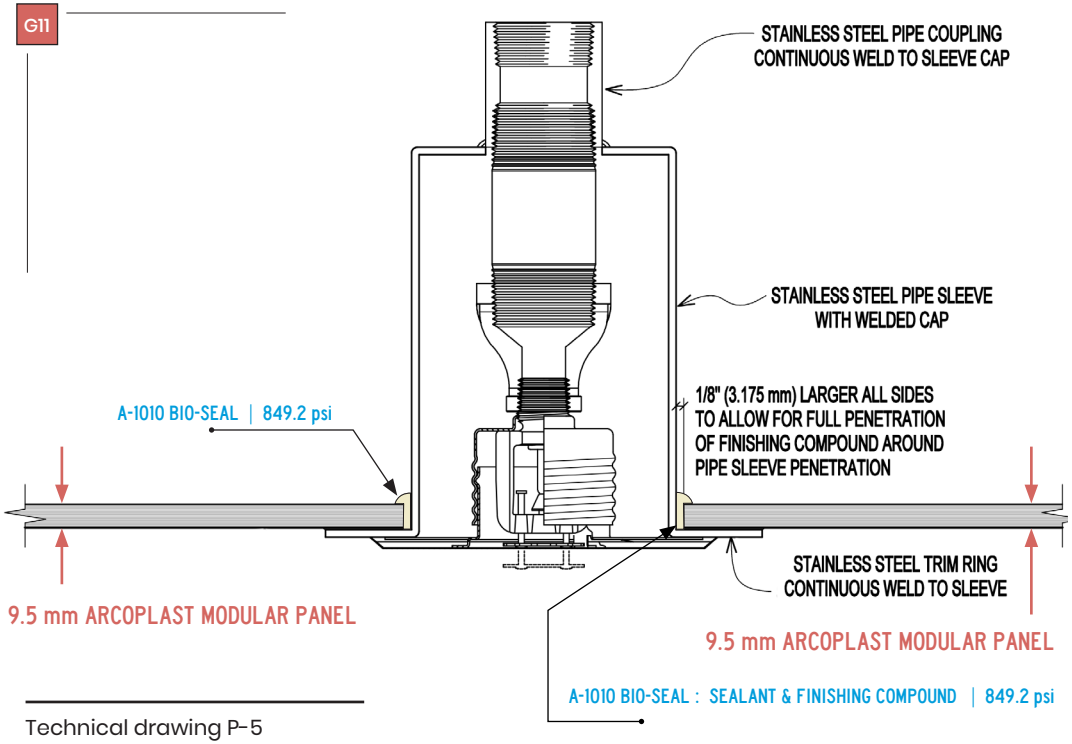


G9 Lap Shear tests : A-2020 capacity to adhere to various materials

Material	Acryloyl panel	GFRP panel	Galvanized steel	Stainless Steel
Epoxy	1087.8 psi	1195 psi	1303.5 psi	1220 psi
MMA	976 psi	1307.3 psi	759.5 psi	864.3 psi
Urethane	1050 psi	1126.4 psi	768.3 psi	844.2 psi
Acryloyl panel	2088.1 psi	-	1440.2 psi	1256 psi
GFRP panel	-	-	1526.9 psi	1214.6 psi

plan Arcoplast for the longterm

Direct attach penetrations are common. But how to do it and retain the primary barrier seal?



Technical drawing P-5

Fire sprinkler surface and recessed trim, penetrates 9.5 mm Arcoplast modular panel system, seamlessly interfaced with Arcoplast A-1010 Bio-Seal

microns or millimeters

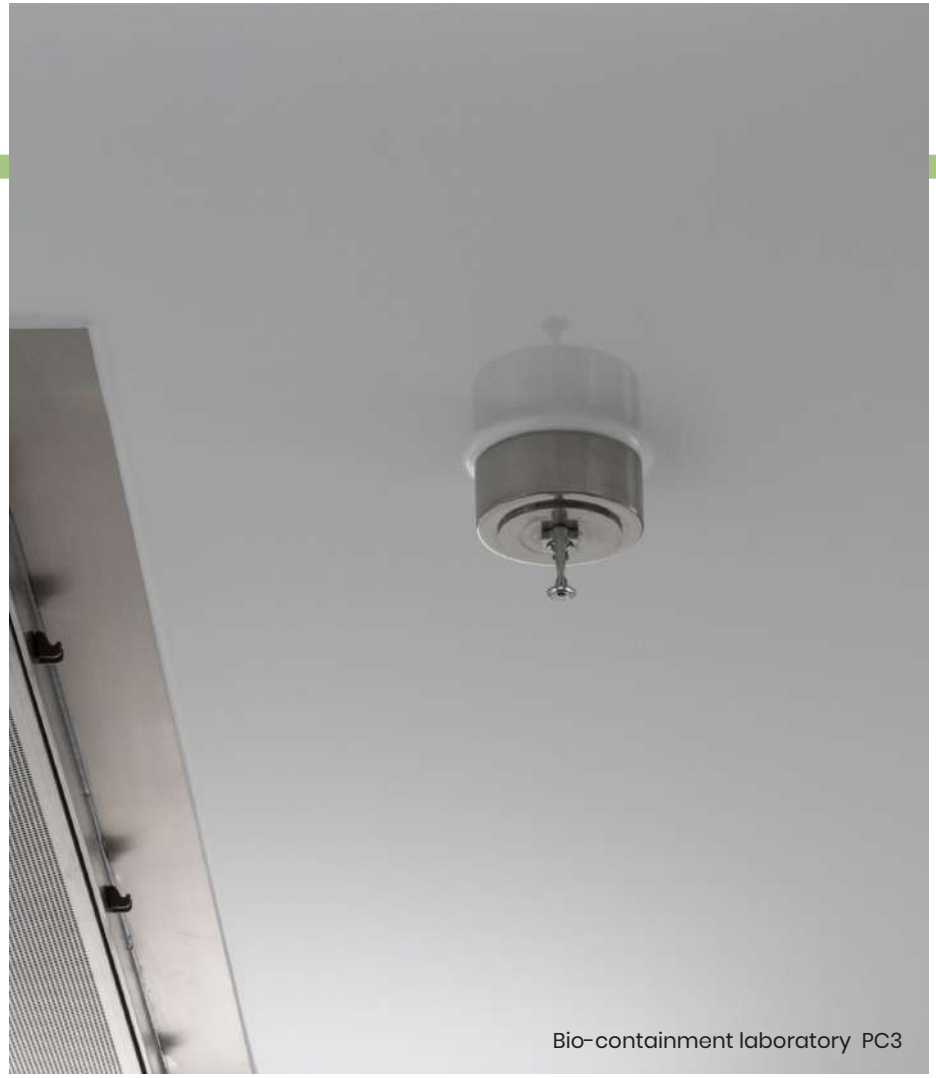
pass-through Penetrations

The outcome of every pass-through penetration is determined by the bonding of the fixture to the primary barrier surface. A-1010 Bio-Seal seals and finishes any pass-through penetration up to BSL 4.

The following combination of factors make up the Arcoplast penetration system.

With impressive mechanical strength Bio-Seal A-1010 sealant and finishing compound bonds together various materials and fixtures to the primary barrier surface. (Please observe the Lap Sheer tests on Page 8.)

Being no less than 5mm and up to 19.5mm thick, the Arcoplast panel system offers a solid core substrate to support the bond joining the fixture to the primary barrier surface, as opposed to some systems where surface substrate coatings only microns thin are used. One of the long-term advantages of the Arcoplast System, there are no rejuvenating maintenance programs.



Acryloyl paneling penetration sealed and finished with A-1010 Bio-Seal

primary barrier

the Arcoplast panel sealant system

Creating the primary barrier surface and addressing penetrations using complicated on-site surface preparation systems involving multiple trades and technicians, introduce certain degrees of risk. As every stage must be compliant and manufactured onsite to specification.

Arcoplasts system is a ready to install primary barrier manufactured off site to exact specification. Comprised of 3 panel systems that can be cut and trimmed on site, then fitted in two steps. 1/ Using double-sided tape, A-2020 adhesive and splines to attach the panels to the walls and ceiling. 2/ Four hours latter, A-1010 is used to seal and finish the panels into a single primary barrier membrane, touch dry 12 hours, full cure 3 days.

Using the Arcoplast System a well trained crew can fit out a facility to the highest specification, in a considerably short time, as there is no sanding, painting, plastering, spraying protective coatings etc.

Bio-Seal and 12.5 mm Arcoplast paneling | PC3 Laboratory

the water barrier

bacteria mildew, yeasts and fungi

not a problem

Containment has to contend with the constant forces of air pressure, vibrations, water & moisture. Of all of these, moisture is the most prevalent and relentless. Seams and penetrations susceptible to absorption typically harbour bacteria, fungi/ yeasts and mildew.

The absorption rate of A-1010 Bio-Seal is 500 times less than silicon, and having antimicrobial qualities, is highly resilient to bacteria and mildew.

Bio-Seal	**Perm rate of 0.002 grams per square meters per hour**
Silicone	**Perm rate of 1.000 grams per square meters per hour**

Associated with conventional sealants are considerable ongoing maintenance costs due to moisture. Bio-Seals structural integrity has resulted in approximately nil failures and nil on-going rejuvenating maintenance costs.

Imperial perm : Indicates the rate of water vapor flowing through one square foot of material.
Metric perm : 1 gram of water vapor per day, per square meter, per millimeter of mercury.

State of the art food production facility

Environmentally neutral, no VOC and does not contain ozone-depleting chemicals | BSL3

clean room

living building challenge

compliant

Rapidly progressing sciences of today bring numerous changes and expectations for high containment and clean room facilities. Of note are the chemically neutral toxin free products necessary for certain facilities.

The chemically neutral toxin free Arcoplast System consists of Acryloyl wall & ceiling paneling, sealed and finished with A-1010 Bio-Seal.

A-1010 Bio-Seal has no smell, does not flake, crumble or harbour dust, and is toxically neutral. Once cured, contains no solvents or known carcinogens, mutagens, heavy metals, teratogens or other toxic substances and has no ozone-depleting chemicals.

Acryloyl paneling is toxically neutral, and compliant to The Living Building Challenge 3.1.

Critical are good housekeeping seals | BSL3

Arcoplast recessed fire extinguisher hatch | Sealed & finished using A-1010 Bio-Seal

recesses & penetrations

Arcoplasts range of recessed hatches are an effective way to streamline the interior of any modern facility, removing bulk and clutter from the walls and ceiling.

Bio-Seal A-1010 integrates the recessed modules shell into the primary barrier. The internal cabinet offers a secondary barrier for housing a multitude of devices. For large units to share the burden of the load, the recessed shell is direct-attached to the internal framing using A-2020 structural adhesive.

Arcoplast has a wide range of shapes and sizes for various hatches and access doors.

These kits are easily fitted by skilled tradesmen, they require almost no ongoing rejuvenating maintenance.

VLADS : Access control console | PC3 Laboratory

Communications port entry sealed using A-1010 Bio-Seal

Access the internal wiring by simply opening a door

A-1010 Bio-Seal

modern systems

VLADS are a new science of integration for monitoring and controlling the environment and security of a laboratory. These units are a non-invasive system that penetrates the wall cavity creating a secondary barrier for housing and servicing sensitive electronic devices and equipment.

Controlling a high containment laboratory using the VLADS access console, allows a lab technician to monitor, record and control the temperature, humidity and air pressure of the laboratories environment. Easy to operate state of the art back to base security & alarm systems provide high security for staff.

Designed and made to specification, available in most PMS colors, VLADS are robust, require approximately nil rejuvenating maintenance. All of the electronic devices are subject to the warranty provided by the manufacturer.

opening & closing the barrier

Doors are a complex device in the world of containment, as many functions perform simultaneously. The door must create and release the barrier seal simply by opening and closing; this is a complex task.

The knock-on effect of a door opening and closing impacts on the internal barrier membrane. The containment barrier seal around the door frame and the wall lining must endure this constant traffic.

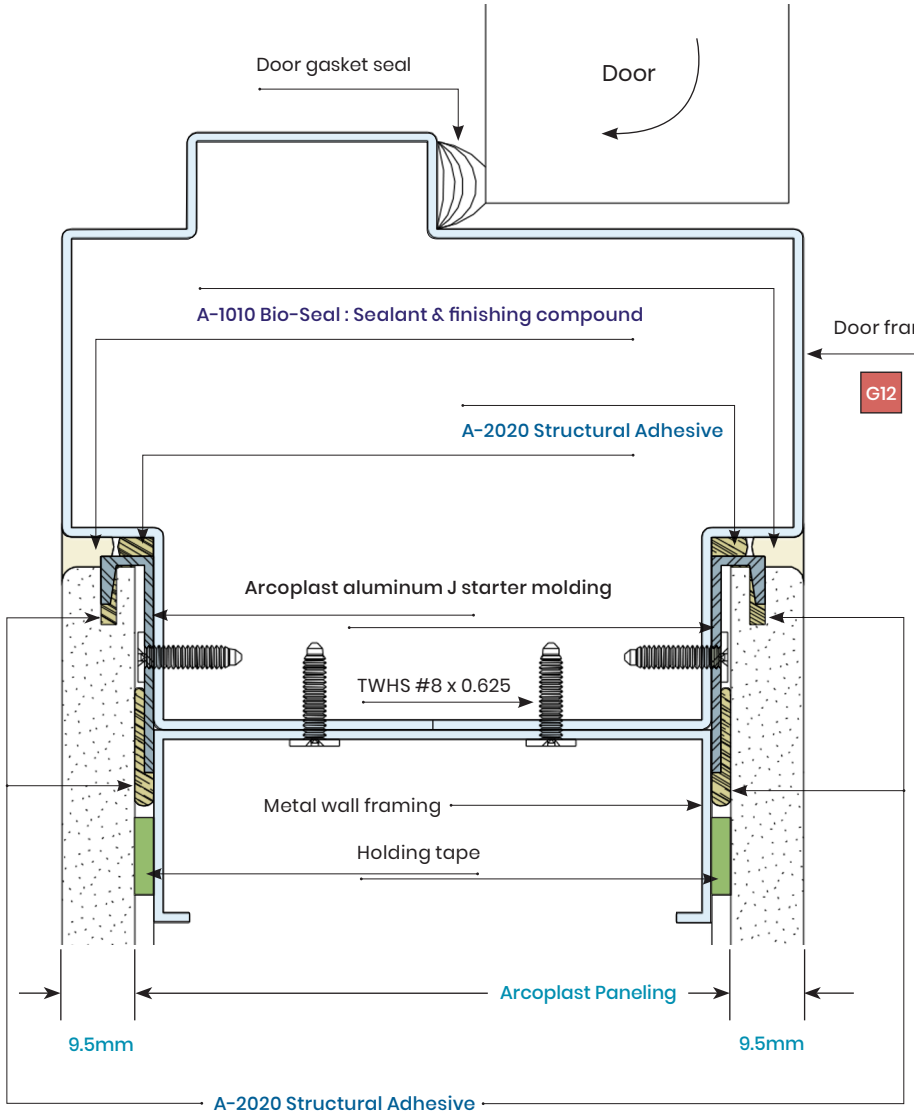
Let me begin by pointing out there has never been a door frame that didn't interface with the Arcoplast panel & sealant system, including some very irregular door frames. Achieving the containment barrier seal between the door frame and wall panel, three inherent properties of the Arcoplast System are put to work.

1/ No matter how irregular the door frame, onsite modification and fitting of an Arcoplast panel around a door frame is a relatively simple task for any skilled tradesperson.

2/ Bio-Seals capacity to adhere and grip multiple materials, notably metals and polymer resins; this is a key factor in creating the enduring seal between the door frame & Arcoplast wall paneling system. Note technical drawing G12 and table G13 on the following page.

3/ Addressing any indiscrepancies, with no loss of structural integrity. A-1010 Bio-Seal has a forgiving tolerance, ranging from : 1/8 - 1/2 inch (3mm - 12.5mm).

Arcoplast System : Complex shapes are addressed without issue



471.9 psi	Stainless steel box frame with flush panel assembly	DF- 3	Scale 1 : 1

constructability

Door frame assembly : DF -3

G12 471.9 psi

G13 **Test results on various materials interfacing with the Arcoplast System.**

psi	Door frame assembly style	Drawing
314.1	Anodized aluminum cGMP frame	DF-20
315.2	Anodized aluminum tubular frame not sanded	DF-18
460.9	Anodized aluminum tubular frame sanded	DF-18
498.6	Cold rolled steel hollow frame	DF- 1
458.2	Pultruded fiberglass hollow frame	DF- 1
471.9	Stainless steel box frame with flush panel assembly	DF- 3
496.9	Stainless steel hollow frame flush panel	DF-2
370.9	Stainless steel hollow frame flush return over panel	DF- 19a
220	Stainless steel hollow frame return over panel	DF- 19b

Arcoplasts methodology of construction : laboratory tests, scientific data, technical drawings, sign off sheets, instruction manuals, codes of compliance, training programs and years and years of boots on the ground applied experience.

cGMP compliant flush glazed window and fully integrated aluminum extrusion

internal external glazing

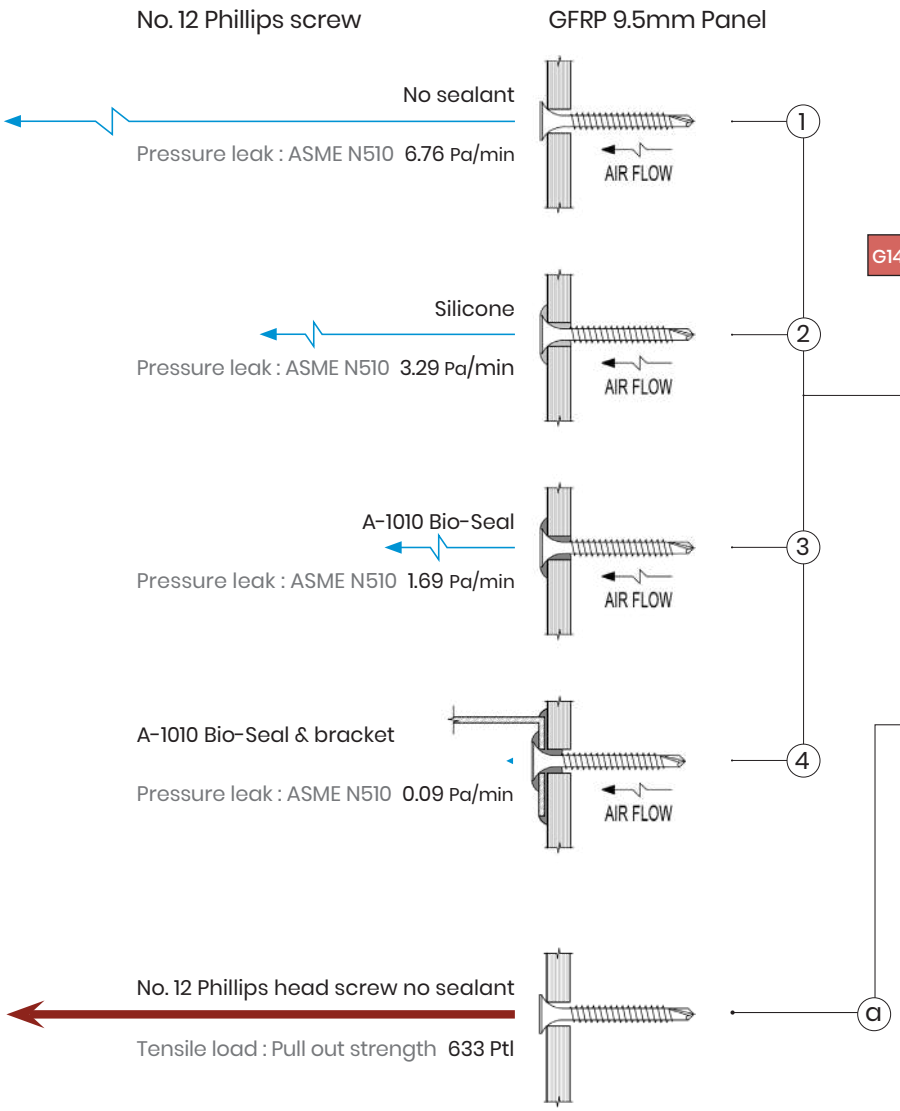
Thanks to Arcoplast A-1010 Bio-Seal two in one sealant and finishing compound, high performance seal-pressure decay testing is now achievable for wall and window housing interfaces.

Arcoplasts flush cGMP compliant window units perform as the primary barrier for partitions, load and non-load bearing walls, including wall liner applications bordering new and existing exterior wall constructions.

It's the little things...
Arcoplast design their aluminum double wall window housing extrusions to house a silica gel desiccant moisture absorption pack. What looks like a salt shaker is in-fact a stainless steel air vent for the absorption pack. This attention to detail eliminates condensation typically associated with double glazing exterior wall constructions.

It's the little things.... and it does look like a salt shaker, but it works superbly | PC3 Laboratory

A high containment lab with a view, Arcoplast double glazing | PC3 Laboratory



G14

screws and fasteners

Tests conducted using : No.12 Phillips head screw, drilled into Arcoplast GFRP 9.5mm Paneling

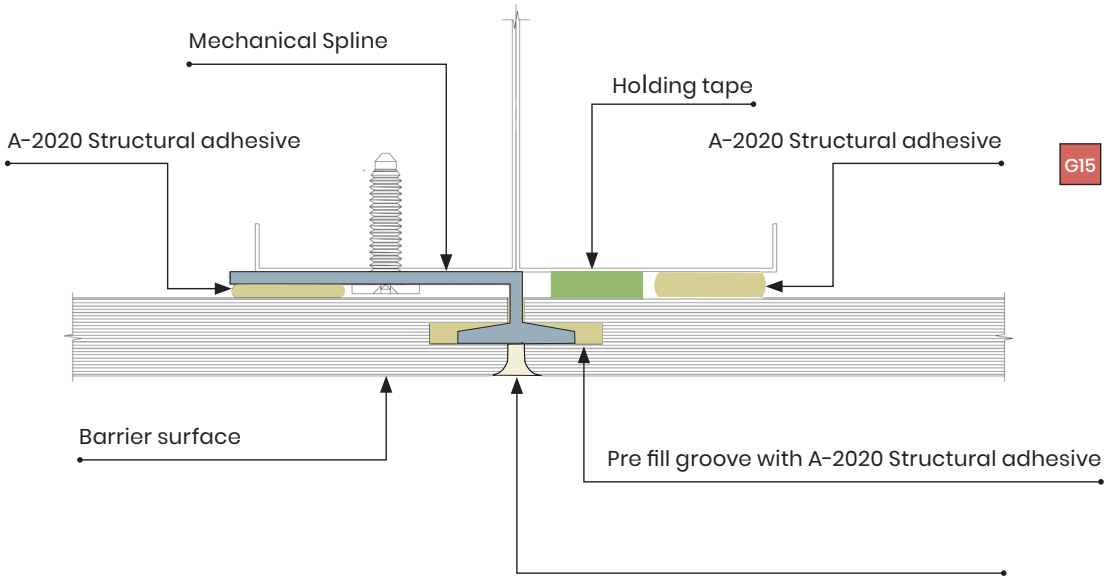
Test	ASME N510 pressure leak test	Result
1	No sealant	6.76 Pascal per min over 1 hour
2	Silicone	3.29 Pascal per min over 1 hour
3	A-1010 Bio-Seal	1.69 Pascal per min over 1 hour
4	A-1010 Bio-Seal & bracket	0.09 Pascal per min over 1 hour

	Pull out strength	Result
a	No sealant	633 lbs. (Pull test load)

A-1010 Bio-Seal has it covered

In the event where laboratory or plant equipment must penetrate the barrier surface requiring screws or mechanical fasteners, A-1010 Bio-Seal has it covered.

As described in the chart G14, Bio-Seal A-1010 is effective in sealing screw and fastener penetrations. No less impressive are the results, revealing the retention strength of a No.12 Phillips screw embedded into the solid core matrix of an Arcoplast composite panel, ref G14.



G15

The panel gap is filled with A-1010 Bio-Seal sealant and finishing compound

A-1010 Bio-Seal : Standard color is pristine white

Aluminum mill finish mechanical spline assembly - Patent No. 10,087,637 B1

Arcoplast technical drawing no : PP-1

the spline method

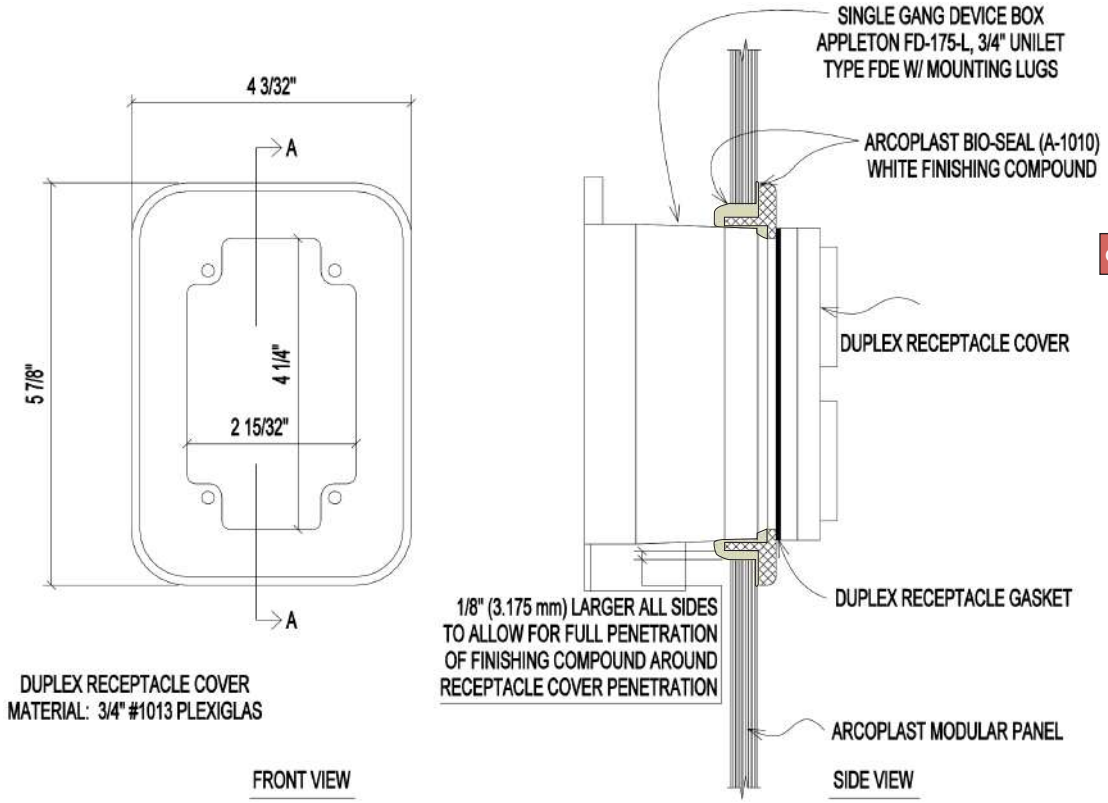
The Arcoplast mechanical spline is the backbone for wall to panel attachment, and solves many of the technical issues of lining over existing materials or fitting out a new building.

Depending on the substrate; the spline is fixed to either the metal framing or concrete pillars, using fasteners & A-2020 structural adhesive. Double-sided tape is used to support the panel while the A-2020 structural adhesive cures.

As no screws or fasteners pass through the Arcoplast panel there is no breach of the barrier surface. Please note the technical drawing G15.

G16 Tests using the Arcoplast spline system in a worst case seismic scenario.

Country	Report	Location	Result
USA	ICC-ES_AC156	California USA	Pass
NZ	NZS 4219 (2009)	Arthurs/ Otira NZ	Pass



Pressure decay test report Dwg - P-1

face plates

G17

form meets function

Pressure Decay Test Report "Electrical Gang Box with Plug"	
Start pressure	1044.1 Pa
End pressure	1056.3 Pa
Average flow rate over one hour period	less than 0.001 scfm
Average pressure drop over one hour period	-0.2 Pa/min²
Test Criteria 3.1 (maximum 12.5 Pa/min)	Pass
Test Criteria 3.2 (maximum 0.0056 scfm)	Pass

To ensure the correct attachment and a high containment seal, many devices that penetrate the primary barrier require custom-made face plates. The benefit of using an Arcoplast face plate is evident when observing the results presented in table G17.

3.1 The Public Health Agency of Canada document, Laboratory Biosafety Guidelines: 3rd Edition (2004), requires that a Containment Level 4 room exhibit a maximum of 12.5 Pascal (Pa) per minute pressure drop at 500 Pascal over a twenty minute period.
3.2 The Public Health Agency of Canada document, Laboratory Biosafety Guidelines: 3rd Edition (2004), requires that the air handling system ductwork of a Containment Level 4 room exhibit a maximum leakage rate equal to 0.1% of air volume per minute at 1,000 Pa, utilizing the procedure from ASME Standard N510, Testing of Nuclear Air Treatment Systems (1995). The ASME N510 procedure utilizes pressure decay values to calculate an average flow rate. The volume of the test enclosure was calculated to be 5.6 cubic feet. Therefore, the maximum rate of air leakage at 1,000 Pa is 0.0056 standard cubic feet per minute (scfm) for this test case.

A-1010 Bio-Seal is used to seal and bond the face plate / MEP to the barrier surface

grommet & plates

Required services such as electrical outlets, mechanical equipment, plumbing, monitoring and security devices may now be form-fitted with Arcoplast's functional, modern system of acrylic trim plates.

Arcoplast trim and face plates are designed to correctly integrate pass-through penetration devices into the primary barrier. The trim plate facilitates the device to be properly fixed then adhered and sealed using A-1010 Bio-Seal.

Arcoplasts wide range of face plates, trim rings, slip connections, have a long proven history of reliability and performance.

Arcoplast Systems has no ongoing life cycle costs

the time line barrier

The primary surface barrier in a containment facility must undergo rigorous cleaning regimes, maintain constant control over air, gas, moisture, temperature and humidity and endure twenty-four seven, the constant traffic of activities associated with the facility.

Containment is a constant science of microns measured in micro seconds that become minutes then hours, days, months, years and then decades and decades. Containment is a process of controlling multiple constants.

Longevity without rejuvenating maintenance, the Arcoplast System is a return on investment nothing less than a growth curve based on : The installation costs are minimal, followed by nil rejuvenating maintenance, aligned with nil down time.

The modern art of coving | PC3

the perfect seal

toxic free
odor free

holistic primary barrier system

elongation 199%

stain & chemical resistant
non-yellowing

perm rate 0.002

rejuvenating maintenance nil
doesn't deteriorate over time
nil delamination

low shrinkage
non-porous
non-sag

aesthetics
sophisticated modern clean finish

environmentally neutral
no solvents, no hood system, no effect on the ozone

The critical path for high containment is the perfect seal making possible, penetrations, seams, joins and the integration of various materials into the primary barrier.

The key ingredient of the Arcoplast System is simplicity, not only in materials and process, but right through from architectural design to onsite execution; to a standard of excellence using applied and tested sciences developed over a span of 35 years.

A-1010 Bio-Seal : Quality workmanship is a credit to all involved

the tolerance factor

onsite Build

Margins and tolerances for practical applications

Almost all high containment laboratories are constructed onsite, it goes without saying every onsite build has a mix of installations that vary a couple of millimeters, are installed slightly out of square or not quite plumb. It's that forgiving aspect of quality materials that allow for a project to be managed to specifications of excellence.

Bio-Seals pliable viscosity and chemical adhesion properties, resolve on-site working tolerances such as variable thickness's & widths, resulting in a clean professional finish, whilst retaining all physical integrities & barrier seal specifications.

A-1010 Bio-Seal when tooled flat or coved has a working applied tolerance range of : 3mm - 12.5mm.

A-1010 Bio-Seal produces a modern clean highly robust seamless finish

the final finish

Building onsite

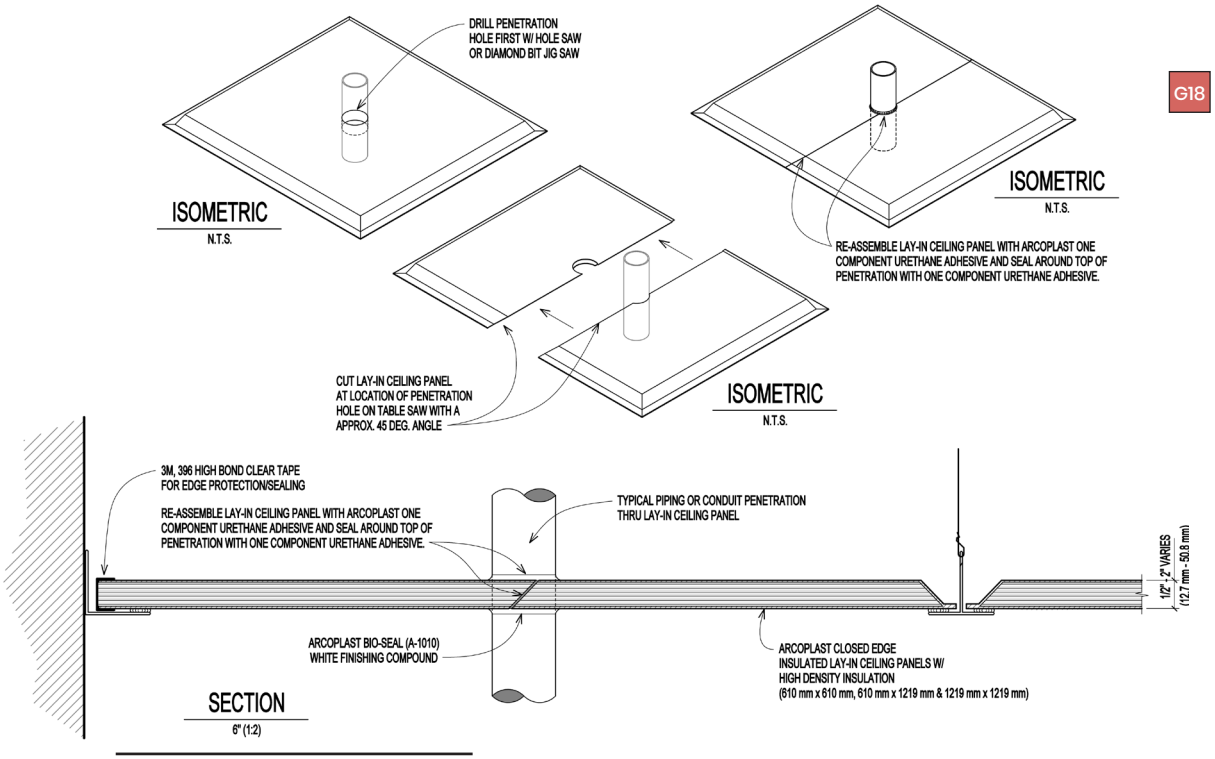
Awkward tasks in hard to access places

Penetrations often are in difficult positions or pass through a ceiling, raising the questions, how good, how professional are the final finishes and seals on overhead horizontal surfaces?

Bio-Seal does not sag or droop, the viscosity & texture is malleable with a pliable working time of 45 minutes, giving sufficient time for a skilled tradesperson to seal & cove the most awkward of projects.

Bio-Seal is not a solvent evaporation cure sealant. When sealing around a pipe or fixture, Bio-Seal offers a consistent and predictable finish, it does not "lose" its grip and separate from the surfaces being applied to.

The viscosity of Bio-Seal is one of it's stellar features. It feathers and coves seamlessly, offering a perfect seal and professional finish, regardless if the surface is overhead horizontal, or vertical.



Technical drawing DWG P-2

Obstacles and challenges : Working around existing infrastructures.

answers & solutions

G18

Building plans

Existing protruding services and infrastructures...

The technical drawing DWG P-2 depicts a real time problem solution scenario, in this case the problem is how to work around an existing infrastructure. Real time problems are numerous on any work site; having practical answers is what matters.

When you choose Arcoplast you invest into a working system with hundreds of technical drawings and test reports, founded on laboratory research and practical real time application.

To say we have the answer to everything is not a claim we make. What we have is hands on experience of thousands of projects and quarter of a century of accumulated knowledge; with that we have solved all problems to date.

Arcoplast A-5050 Surface repair kit

when things happen

plan Build onsite applications

If you don't have a plan B you don't have a plan A

Measure twice cut once, sometimes things happen. Arcoplast has the answer when it goes wrong or changes happen. Arcoplast A-5050 is the repair kit, available in white. It has a working time of 20-30 minutes, the cure time is 90 minutes, thereafter can be wet or dry sanded. Final step, use a buffing compound to achieve a clean polished surface.

Suitable for surface scratches, cracks, deep gouges and various perforations including core inserts, facilitating a full panel surface restoration.

Arcoplast products are to be installed only by a qualified skilled tradesperson or trained operator. Arcoplast products are not domestic products.

the Science of penetrations

Arcoplast A-1010 Bio-Seal sealant finishing compound

Direct attach using A-2020

Arcoplast A-1010 Bio-Seal sealant finishing compound

Direct attach using A-2020

Arcoplast A-1010 Bio-Seal sealant finishing compound

Plumbing penetration

Direct attach using A-2020

Arcoplast A-1010 Bio-Seal sealant finishing compound

Future proofing, complex communication and electrical wiring harnesses, venting systems, gas ducts and plumbing arrays, interface with the Arcoplast System, without issue, because in the hands of a skilled tradesperson, the Arcoplast System is easy to adapt and customize onsite to the build requirement.

Arcoplast A-1010 Bio-Seal sealant finishing compound

Direct attach using A-2020

Arcoplast A-1010 Bio-Seal sealant finishing compound

Direct attach using A-2020

Arcoplast A-1010 Bio-Seal sealant finishing compound

Pass-through plumbing penetration

Direct attach using A-2020

Arcoplast A-1010 Bio-Seal sealant finishing compound

Until you discover Arcoplasts Bio-Seal and adhesives, designing and shaping the interior of a containment laboratory or controlled environment might seem burdened with restrictions & limited options.

complexity made simple

Arcoplasts System of structural adhesives, sealants, and finishing compounds make direct attachments and pass-through penetrations possible. | PC3 Laboratory

thank you

Over the past quarter century Arcoplast has progressed the science of high containment surface barrier technologies, through engineering, design and advanced construction methods. Our achievement in this specialized field, is the modernisation of wall and ceiling barrier systems. | PC3 Laboratory

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