MONOTEK®

Complete Industrial & Commercial flooring solutions

MONOTEK® flooring systems are primarily methylmethacrylate (MMA) resin based coatings that rapidly cure to full chemical & mechanical strength in **one (1) hour** at temperatures ranging from +40°C down to minus 30°C. **MONOTEK®** flooring systems are resin rich, self-levelling materials, that are highly chemical resistant to a broad range of chemicals and are extremely UV resistant, anti-slip, hardwearing, flexible/ resilient and impact resistant.
MONOTEK® flooring systems have broad applications in most commercial and/or industrial flooring environment but especially in food processing & manufacturing, commercial kitchens / canteens, chemical processing, public access areas (train/bus station platforms, access ramps & amenities), aquatic / recreation & leisure centres, engineering and primary industries (Dairies, Meat Processing / boning, Abattoirs, etc..)
MONOTEK® flooring systems are professionally marketed & installed Australia-wide exclusively by **D. P.J Coating Systems Pty. Ltd.** (a family owned company, established in 1977) – with a five (5) year conditional guarantee of workmanship in application & quality of all materials.

PRODUCT SUMMARY

MONOTEK® PRIMER B71
Rapid hardening, MMA based, medium viscosity, highly adhesive primer for use on concrete, cement sheeting, ceramic tiles (with MONOTEK® adhesion promoter) and all cement bound substrates.

MONOTEK® 332
Elasticized MMA based resin which is suitable for high build (4 - 10mm) , wear resistant flooring systems subject to heavy abrasion & loads on concrete/ cement based substrates and some suitably prepared metal surfaces. Due to the flexibility of **MONOTEK®** 332 it is ideal for use in low temperature environments such as freezers & cool-rooms.

MONOTEK® 420
Flexible, low viscosity, MMA based resins for use mainly as a self-levelling, high build; trowel applied flooring finish (1 - 20mm) on predominantly concrete or cementitious substrates.

MONOTEK® 510
Low viscosity, MMA based resin suitable for high build mortars, which have high binder content, in very heavily loaded areas. **MONOTEK® 510** is also used for installation of coving and can also be used as a repair mortar for filling deep depressions, prior to the application of a self-leveling finish.

MONOTEK® 527
Low viscosity, MMA based resins suitable as a topcoat on **MONOTEK® 332, 420** systems in most commercial / industrial environments (warehouses, bakeries, food manufacturing, swimming pools, toilets, etc….) **MONOTEK® 527** can be applied as a clear or pigmented topcoat, and due to its extra hardness is less prone to forklift tyre marking as compared with other grades of **MONOTEK®**. **MONOTEK® 527** are highly resistant to a wide range of chemicals (refer Chemical Resistance Chart enclosed)



TYPICAL AREAS OF MONOTEK® APPLICATION

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CHEMICAL RESISTANCE CHART:

Surface coatings made with **MONOTEK®** MMA based resins are highly resistant to attack from a wide range of chemicals. They provide excellent protection from spills and leakage of organic & mineral acids, as well as a wide range of alkalis. Limitations exist with the conventional **MONOTEK®** resins when exposed to some aromatic solvents and high concentrations of acids.
Our test procedure involves total immersion of unfilled, polymerized coating samples of 2mm thickness, in the test medium at 23^0C. After four (4) weeks of testing, its tensile strength was tested. The rating "resistant" stipulates that strength readings have not deviated more than 15% from the control samples stored in air at 23^0 C. These tests did not in any way assess aesthetic finish or staining of the samples, which may occur if the flooring is exposure to even short or medium term to various chemicals as listed below.
The ratings given in the following table should be considered as broad indications only. The resistance of the finished, filled coating system may be influenced by temperature, type of pigment used, time that the surface is exposed, blend of fillers, type, temperature and combination of chemical types, etc…. For this reason we recommend that on-site, in-situ tests should be carried-out to verify the suitability of the **MONOTEK®** flooring in each particular specific application – this is the responsibility of the facility owner.

LEGEND

R = Resistant (ie. after 4 weeks exposure the samples have not changed / some staining may occur)
L = Limited Resistance (Short term exposure (1 - 4 hrs), mechanical properties will deteriorate/ staining.
X = Damage occurs even with short term exposure.

Test Media	Conc.	MONOTEK® 332, 420 & 510	527	Test Media	Conc.	MONOTEK ® 332, 420 & 510	527
ALKALIS				**SOLVENTS**			
Ammonia	10%	R	R	Acetone		X	X
	30%	L	L	Benzene		X	L
Caustic Soda	10%	R	R	Butanol		X	L
	30%	R	R	Butyl Acetate		X	X
	50%	R	R	Butyl Ether		X	L
Potassium Hydroxide	10%	R	R	Carbon Tetrachloride		X	L
	30%	R	R	Chloroform		X	X
	50%	R	R	Cyclohexane		R	R
ACIDS				Ethanol		X	L
Acetic Acid	10%	R	R		30%	R	R
	30%	L	R	Ethyl Acetate		X	X
	80%	X	X	n- Heptane		R	R
	Conc.	X	X	n- Hexane		R	R
Chromic Acid	10%	R	R	Isopropyl Alcohol		X	L
	20%	R	R	Cresol		X	X
	40%	X	R	Methyl Ethyl Ketone		X	X
Citric Acid	10%	R	R	Perchloroethalene		L	R
	30%	R	R	Phenols		L	R
Formic Acid	10%	L	R	n- Propyl Acetate		X	L
	30%	X	L	n- Propyl Alcohol		X	L
Hydrochloric Acid	10%	R	R	Styrene		L	R
	30%	R	R	Turpentine		R	R
	Conc.	R	R	Toluene		X	L
Lactic Acid	10%	R	R	Trichloroethane		X	X
	30%	R	R	Xylene		X	L
Nitric Acid	10%	R	R	**NATURAL OILS & FATS**			
	30%	L	L	Animal Fats		R	R
	Conc.	X	X	Castor Oil		R	R
Oxalic Acid	10%	R	R	Linseed Oil		R	R
Phosphoric Acid	10%	R	R	Olive Oil		R	R
	40%	R	R	Vegetable Oils		R	R
	Conc.	L	L	**DISINFECTANTS & CLEANERS**			
Sulphuric Acid	10%	R	R	Calcium Chloride		R	R
	30%	R	R	Carbolic Acid		X	X
	50%	L	R	Formalin	40%	R	R
	Conc.	X	X	Hydrogen Peroxide	10%	R	R
SALT SOLUTIONS					30%	R	R
(Saturated)					80%	L	L
Ammonium Chloride		R	R	Liquid Ammonia		R	R
Ammonium Sulphate		R	R	Turpentine		L	L
Calcium Chloride		R	R	**FRUIT & VEGETABLE JUICES**			
Potassium Chloride		R	R	Apple/lemon/orange/vegetable		R	R
Sodium Chloride		R	R	Wine		R	R
Sodium Carbonate		R	R	**PETROCHEMICALS**			
Sodium Hypochlorite	12.5%	R	R	Crude, Paraffin or Mineral Oils		R	R
Sodium Sulphate		R	R	Diesel Fuel or Kerosene		R	R
				Gasoline, all Octanes'.		L	R
				Petroleum & White Spirit		R	R

CHARACTERISTIC DATA - Typical MONOTEK® Flooring Systems

CHARACTERISTIC DATA	No. 1 - B71 / 420 /527 (2 - 4 mm)	No. 2 420/ /332/ 527 (4 - 8 mm)	No. 3 332/ 420 (4 - 8 mm)	No. 4 510/332
USDA / AQIS Approved	yes	yes	yes	Yes
Compressive Strength (DIN 1164)	55 N/mm^2	43 N/mm^2	26 N/mm^2	34 N/mm^2
Bending Strength (DIN 1164)	15 N/mm^2	17 N/mm^2	19 N/mm^2	24 N/mm^2
Modulus Of Elasticity (DIN 53457)	2500 N/mm^2	3000 N/mm^2	not measurable	4350 N/mm^2
Temperature Resistance (dry),max	60^0C	60^0C	60^0 C	not available
Resistance to thermal deformation (Vicat) (DIN 53460)	60^0 C	60^0 C	50^0 C	48^0 C
Ball impact hardness (DIN 53460)	53 N/mm^2	93 N/mm^2	15 N/mm^2	41 N/mm^2
Coefficient of thermal expansion (VDE 0304/1)	63.10^{-6} K^{-1}	$50. 10^{-6}$ K^{-1}	$79. 10^{-6}$ K^{-1}	$40 . 10^{-6}$ K^{-1}

VOC Statement –

MONOTEK® MMA resinous flooring systems contain **less than 100g/lt total VOC**
(Test method ASTM D 2369 - 2014)

Critical Heat (radiant) Flux / Smoke development tests (AS ISO 9239-1)

(Compliant with the Building Code of Australia (BCA) specification C1.10)
- **CERTIFICATE AVAILABLE** on request

TEST No 1 - 2 – 6mm thick MONOTEK® MMA flooring systems – Coloured sands

T E S T R E S U L T S

TEST METHOD	Test Parameter	Test quantity	Mean avg. test result	Criteria required
AS ISO 9239-1	Critical heat (radiant) flux (kW/m^2)	3 Panels	9.7 kW/m^2	Minimum $\geq$2.2 kW/m^2
AS ISO 9239-1	Smoke development (%*minute) – Mean result	3 Panels	18.9 % min.	Minimum $\leq$750%min

TEST No 2 - 2 – 6mm thick MONOTEK® MMA flooring systems – MonoChip® coloured chips

T E S T R E S U L T S

TEST METHOD	Test Parameter	Test quantity	Mean avg. test result	Criteria required
AS ISO 9239-1	Critical heat (radiant) flux (kW/m^2)	3 Panels	8.9 kW/m^2	Minimum $\geq$2.2 kW/m^2
AS ISO 9239-1	Smoke development (% minute) – mean result	3 Panels	19.6 % min.	Minimum $\leq$750%min

Classification for the **MONOTEK®** MMA based Flooring Systems (**ISO 11925-2**) B_{fl} – s1 (low flammability)

ASSOCIATED MONOTEK® PRODUCTS:

MONOTEK® Adhesion Promoter HP

Additive to MONOTEK ® MMA resins to improve their adhesion to particularly smooth surfaces (eg. Ceramic tiles & bright metals such as stainless steel, aluminium, copper and galvanized iron) MONOTEK® Adhesion Promoter HP will slow the normal curing process slightly.

MONOTEK® HBE

High build (100% solids), coloured (available in selected AS2700 colours), gloss, three (3) component epoxy coatings range for use as a low film build (i.e. 0.50 - 1.0 mm DFT) flooring finish in low to medium wear areas, such as warehouse, mechanical workshop, storeroom type applications. (Standard (summer) and low temperature (winter) hardener systems available).

OTHER HIGH PERFORMANCE PRODUCTS IN OUR RANGE

PoolPaintonline.com.au Luxapool

PREMIUM SWIMMING POOL & AQUATIC AREA COATINGS

- Available in high build, two pack epoxy & chlorinated rubber finishes. / twenty (25) colours standard
- Single component, water-based anti-slip floor coatings.(Poolside & Paving)
- Single component, solvent based concrete sealers (Coloured & Clear)

Vikan hygiene system

VIKAN® CLEANING EQUIPMENT FOR THE FOOD PROCESSING INDUSTRY

- Cleaning equipment originally designed for the food processing / manufacturing industry but with applications in all hygiene critical applications (kitchens, health & leisure, etc..). The range includes colour coded, specialised foam squeegee (ideal for MONOTEK® anti-slip flooring), scrubbing brooms, scrapers, spades, spatulas, buckets, etc….