



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 with a five (5) year conditional guarantee of workmanship in preparation, application & installation.

Installed exclusively by D. P.J Coating Systems Pty. Ltd. (a family owned company, established in 1977)

PRODUCT SUMMARY

MONOTEK® PRIMERS 112 & B71

Rapid hardening, MMA based, medium viscosity, highly adhesive primers for use on concrete / cement screeds, FC sheeting, ceramic tiles (with **MONOTEK®** adhesion promoter) and 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® 412 & 418

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® 526 & 527

Low viscosity, MMA based resins suitable as topcoats on **MONOTEK® 332, 412 & 418** systems in most commercial / industrial environments (warehouses, bakeries, food manufacturing, swimming pools, change rooms/ toilets, etc....)

MONOTEK® 526 & 527 can both be applied as clear or pigmented topcoats, and due to their extra hardness are less prone to forklift tyre marking as compared with other grades of **MONOTEK®**.

MONOTEK® 526 & 527 are highly resistant to a wide range of chemicals (refer Chemical Resistance Chart)



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°C. 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°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, 412, 418 & 510	526 & 527	Test Media	Conc.	MONOTEK® 332, 412 & 510	526 & 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			
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							
(Saturated)							
Ammonium Chloride		R	R	Liquid Ammonia	30%	R	R
Ammonium Sulphate		R	R	Turpentine	80%	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 Oil		R	R
Sodium Sulphate		R	R	Diesel Fuel		R	R
				Gasoline, all Octanes'		L	R
				Kerosene		R	R
				Mineral & Paraffin Oil		R	R
				Petroleum		R	R
				White Spirit		R	R



CHARACTERISTIC DATA - Typical MONOTEK® Flooring Systems

CHARACTERISTIC DATA	No. 1 - 112/ 418 /526 (2 - 4 mm)	No. 2 412/ /332/ 527 (4 - 8 mm)	No. 3 332/ 412 (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 ⁰ C	60 ⁰ C	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

Critical Heat (radiant) Flux / Smoke development tests (AS ISO 9239-1 & EN ISO 11925-2)

(Compliant with the Building Code of Australia (BCA))

* 2 – 6mm thick MONOTEK® MMA flooring systems.

T E S T R E S U L T S

TEST METHOD	Test Parameter	Test quantity	Mean value	Criteria fulfil
AS ISO 9239-1	Critical heat (radiant) flux (kW/m ²)	3	10.7	YES
	Smoke development (%*minute)	3	47	YES
EN ISO 11925-2 (15s flaming time surface ignition)	Flame spread ≤ 150 mm	6	.../....	YES

Classification for the MONOTEK® MMA based Flooring System is - **B_{fl} – s1** (low flammability)

ASSOCIATED MONOTEK® PRODUCTS:

MONOTEK® Accelerator 101

Additive to MONOTEK ® resins to increase there curing time at temperature ranges of - 30⁰ C to + 10⁰ C.

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 Epoxy

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



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)



CLEANING EQUIPMENT FOR THE FOOD PROCESSING INDUSTRY

- Cleaning equipment specifically designed for the food processing / manufacturing industry. The range includes specialised squeegee (ideal for MONOTEK® anti-slip flooring), scrubbing brooms, scrapers, spades, spatulas, buckets, etc....

