



constructing the food industry

flooring and drainage

FOOD-JOINT RAPID™

Two Component, Fast Sealing, Pourable Grade, Cold Store Joint Sealant.

Description

Food-Joint RAPID™ is a two component, fast cure, pouring grade joint sealant which will cure down to -2 °C for application in cold stores for load bearing, saw cut or preformed control joints. Food-Joint RAPID™ is a tough, hard material with a degree of flexibility allowing up to 10% movement.

Appearance

Food-Joint RAPID™ can be manufactured in the full range of Cemart colours.

Typical Uses

- Sealant for internal, horizontal applications
- Saw cuts or preformed control joints
- Cold stores
- Food processing
- Warehouses
- Production plants
- Repair of random shrinkage cracking in concrete slabs
- Where a harder more impact resistant joint sealant is required to protect joint arrises

Advantages

- Mercury and solvent free
- Low viscosity
- Penetrates joints as narrow as 3 mm
- Easy to mix
- Rapid cure
- Minimal downtime
- Excellent chemical and abrasion resistance

Unit Size

1 kg (710 ml) and 3 kg (2.13 litres)

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Estimating

The width : depth ratio of the joint should be 2:1 subject to a minimum depth of 10 mm. Below 10 mm depth, a ratio of 1:1 may be used. To determine the amount of sealant required (in ml) multiply depth (m) x width (mm) x length (mm) i.e. 1 metre length x 20 mm depth x 10 mm width will require 200 ml of product. The table below shows the number of linear metres per kg for various joint dimensions:

		Depth			
		5	10	15	20
Width	5	28.4	14.2	9.46	7.1
	10	14.2	7.1	4.73	3.55
	20	7.1	3.65	2.37	1.78
	25	5.68	2.84	1.89	1.42
	30	4.73	2.37	1.58	1.18
	40	3.55	1.78	1.18	0.89

Physical Properties

Working time @ 20°C - approx' 6 minutes

* Working time increases at lower temperatures

Elongation - 50 %

Maximum recommended movement - 10%

Shore D Hardness - 63

Shore A Hardness - 85

Initial cure to traffic @ 0°C - 12 hours

Surface Preparation

All surfaces should be structurally sound with a clean, dry surface (less than 75% RH) and free from dust, laitance, oil, paint or other forms of contamination. New concrete should be fully cured. Do not use in damp or wet joints as moisture will affect the final appearance and physical properties of the sealant. Joints should be prepared by routing and mechanical brushing, scraping or shot blasting to remove all loose materials. Damaged joints should be repaired using CEMART EP MORTAR Polyurethane joint backing rod should be used in joints over 12 mm wide and tightly packed. Bond breaker tape should be used where polyurethane backing rod is not employed at the base of the joint to prevent sealant adhesion.

Priming

Extremely porous or friable surfaces should be primed with EPOTACKPRIME prior to filling using a stiff brush.

Food-Joint RAPID™ should be applied after the primer has reached a highly tacky state (approx. 4 to 6 hours) or within 24 hours.



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Mixing

Transfer the entire contents of the hardener part B component into the part A component and mix for a minimum of 1 minute using a slow speed drill & paddle mixer to avoid air entrainment. Periodically scrape the bottom and sides of the mixing vessel to ensure complete mixing. Never mix by hand!

Application

Immediately after mixing, pour directly into the joint until slightly proud of the floor surface. Allow to settle and tool level with floor surface using a plastic tool or gloved finger. Additional applications may be necessary as material settles into joint, especially above 20 mm. Joint edges may be masked with tape which should be removed after material has become tacky.

Limitations

For horizontal use only up to a maximum movement of 10%.

Food-Joint RAPID™ is designed as a harder material for a high degree of arris protection. Excessive shrinkage of concrete may overcome the capability of the sealant resulting in splitting of the sealant or de-bonding of one edge. Therefore, joints should be inspected regularly so that any gaps may be refilled with Food-Joint RAPID™. A softer material will offer much less arris protection leading to costly joint repairs in the future.

Cleaning

Tools may be cleaned with CEMART TOOLCLEAN solvent.

Health & Safety

Please consult the appropriate Material Safety Datasheet prior to using any products.

Storage

Store in clean, dry conditions between 5°C and 30°C in original, unopened containers. Shelf life is 12 months from date of manufacture.

General Guidance

This data sheet is intended for general guidance purposes and may contain information that is inappropriate for certain conditions of use. Accordingly, all recommendations and suggestions are made without guarantee. Further information is available from our technical department. Please consult our sales department to confirm that this data sheet is the current issue.



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FOOD-JOINT RAPID™

material data safety sheet (part A)

This data sheet provides the information required by the Chemicals (Hazard Information and Packaging) Regulations.

1. Identification of Substance/Supplier

Coloured resin polyol component.

Cemart Resins Ltd.
Unit 11 Hunslet Trading Estate , Severn Way ,
Leeds , LS10 1BL

2. Composition/Information on Ingredients

2.1. Chemical Description

Polyol component

2.2. Classification

Not applicable.

3. Hazards Identification

Not applicable.

3.1. Classification

This product requires no hazard labelling according to current legislation.

4. First Aid Measures

Eye Contact

Wash eyes immediately with clean water for at least 15 minutes.

Skin Contact

Wash the affected area thoroughly with soap and water.

If irritation, pain or other skin trouble occurs, seek medical advice.

Ingestion

If symptoms persist consult a doctor.

Inhalation

If irritation occurs, move to fresh air. If nose or airways become inflamed seek medical advice.

5. Fire Fighting Measures

5.1. Extinguishing Media

Use fire extinguishing methods suitable for surrounding conditions.

5.2. Special Fire Fighting Procedures

Keep run-off water out of sewers and water sources. Dike for water control.

6. Accidental Release Measures

6.1. Personal Precautions

(See 8.3)

6.2. Environmental Precautions

Do not allow to enter drains, sewers or watercourses. Collect and dispose of spillage as indicated in section 13.

6.3. Method of Cleaning

Collect with absorbent material (sand, diatomite, sawdust and shovel into suitable containers.

7. Storage and Handling

7.1. Storage

Protect from frost.

7.2. Handling

No special methods required.

8. Exposure Controls

8.1. Workplace Exposure Limits (WEL's)

This product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

8.2. Recommended Protective Equipment

Respiratory Protection

Not required.

Hand and Skin Protection

Impermeable gloves.

Eye Protection

Splash proof goggles should be worn.

9. Physical/Chemical Properties

9.1. Physical Data

Physical state	Liquid
Colour	Various colours
Odour	Weak
Solubility	Difficult to mix with water
Relative Density	1.4 - 1.6 @ 20°C
Vapour Pressure	< 0.0001 @ 25°C
Viscosity	500 mPas @ 25°C
Flash Point	> 200 °C (closed cup)
Boiling Point	> 300 °C
Auto ignition Temp.	> 400 °C

10. Stability and Reactivity

Stable under normal conditions. No dangerous decomposition products known.

11. Toxicological Information

11.1 Short Term Effects

Eye Contact

Irritating to eyes.

Skin Contact

No irritating effect.

Inhalation

No irritating effect.

Ingestion

May cause discomfort if swallowed.

11.2 Chronic Effects

12. Ecological Information

12.1 Ecotoxicity

Slightly hazardous for water. Do not allow undiluted product or large quantities to reach ground water, water courses or sewage system.

13. Disposal Considerations

Dispose of waste and residues in accordance with local authority requirements. Do not allow runoff to sewer, waterway or ground.

14. Transport Information

Classification for conveyance: Not required.

Not a marine pollutant.

15. Regulatory Information

15.1. Chemicals (Hazard Information & Packaging) Regulations

Classification: Not classified.

15.4. Safety Phrases

• Wear suitable protective clothing and gloves.

16. Legislation and Other Information

- Health & Safety at Work Act 1974.
- Control of Substances Hazardous to Health (Regulations).
- HSE Guidance Note EH40 (Workplace Exposure Limits).
- Any authorised manual on First Aid by St. Johns/St. Andrews/Red Cross.
- Manual Handling Operations Regulations 1992.
- Environmental Protection Act.
- Dangerous Substances Directive 67/548/EEC.

17. Other Information

Revisions

None.

Revision Date

Not applicable.



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FOOD-JOINT RAPID™

material data safety sheet (part B i)

This data sheet provides the information required by the Chemicals (Hazard Information and Packaging) Regulations.

1. Identification of Substance/Supplier

Brown liquid isocyanate component.

Cemart Resins Ltd.
Unit 11 Hunslet Trading Estate, Severn Way
Leeds , LS10 1BL .

2. Composition/Information on Ingredients

2.1. Chemical Description
Polymeric diphenylmethane diisocyanate
CAS No 9016-87-9 (60 - 100%)

2.2. Classification
Xn;R20. Xi;R36/37/38. R42/43.

3. Hazards Identification

Harmful by inhalation. Irritating to eyes, respiratory and skin. May cause sensitisation by inhalation and skin contact.

3.1. Classification
Xn;R20. R42/43. Xi;R36/37/38.

4. First Aid Measures

Eye Contact

Remove any contact lenses from the eyes before rinsing. Wash eyes immediately with clean water for at least 15 minutes and seek medical advice without delay.

Skin Contact

Wash the affected area thoroughly with soap and water before continuing. If irritation, pain or other skin trouble occurs, seek medical advice. Contaminated clothing should be removed and washed thoroughly before use. **NOTE! Effects may be delayed.**

Ingestion

Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Wash out mouth with water and give patient plenty of water or milk to drink.

Inhalation

If irritation occurs, move to fresh air. If nose or airways become inflamed seek medical advice.

5. Fire Fighting Measures

5.1. Extinguishing Media

Foam, carbon dioxide or dry powder. Larger fires: Water spray, fog or mist.

5.2. Special Fire Fighting Procedures

Keep run-off water out of sewers and water sources. Dike for water control.

NOTE! Use air supplied respirators to protect against gases/fumes. Move container from fire area if it can be done without risk. If risk of water pollution occurs, notify appropriate authorities. Keep up-wind to avoid fumes.

5.3. Unusual Fire & Explosion Hazards

Prolonged exposure to heat may lead to formation of toxic gases.

5.4. Specific Hazards

Fire or high temperatures create toxic gases/vapours/fumes of carbon monoxide (CO), carbon dioxide (CO₂), hydrogen cyanide (HCN).

6. Accidental Release Measures

6.1. Personal Precautions

(See 8.3)

6.2. Environmental Precautions

Do not allow to enter drains, sewers or watercourses. Collect and dispose of spillage as indicated in section 13.

6.3. Method of Cleaning

Do not touch spilled material. Avoid contact with skin or inhalation of spillage, dust or vapour. Provide ventilation and confine spill. Do not allow runoff to sewer. Clean-up personnel should use respiratory and/or liquid contact protection. Collect with absorbent, non-combustible material into suitable containers. Shovel into dry containers. Cover and move the containers. Flush the area with water. Containers with collected spillages must be properly labelled with correct contents and hazard symbol.

7. Storage and Handling

7.1. Storage

Keep away from heat, sparks and open flame. Store at moderate temperatures in a dry, well ventilated area.

Isocyanates react with water to liberate carbon dioxide. Any ingress of moisture into an isocyanate container, whether full or empty, can lead to pressure build up and subsequent explosion.

7.2. Handling

Avoid spilling, skin and eye contact. Ventilate well and avoid breathing vapours. Use approved respirator if air contamination is above acceptable level. Wear full protective clothing for prolonged exposure and/or high concentrations. Do not use contact lenses. Avoid contact with water, alcohols, amines and other materials that may react with isocyanates.

8. Exposure Controls

8.1. Workplace Exposure Limits

(WEL's)

Long term	0.02 mg/m ³
Short term	0.07 mg/m ³

Exposure limits quoted as NCO.

8.2. Engineering Control Measures

Provide adequate general and local exhaust ventilation. Provide eyewash station.

8.3. Recommended Protective Equipment

Respiratory Protection

Respiratory protection must be used if the general level exceeds the WEL.

Use chemical cartridge protection with appropriate cartridge suitable for organic substances.

Hand and Skin Protection

Chemical resistant gloves required for prolonged or repeated contact or where there is a risk of direct contact or splashing. Use protective gloves made of nitrile or neoprene.

Eye Protection

Splash proof goggles should be worn.

Contact lenses should not be worn when working with this chemical.

Provide eyewash station.

9. Physical/Chemical Properties

9.1. Physical Data

Physical state	Liquid
Colour	Dark brown
Odour	Musty
Solubility	Organic solvents
Relative Density	1.1 - 1.3 @ 20°C
Vapour Density	8.5
Vapour Pressure	< 0.0001 @ 25°C
Viscosity	70 - 110 mPas @ 25°C
Flash Point	> 200 °C (closed cup)
Boiling Point	> 300 °C
Auto ignition Temp.	> 400 °C



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material data safety sheet (part B ii)

This data sheet provides the information required by the Chemicals (Hazard Information and Packaging) Regulations.

10. Stability and Reactivity

Stable under normal conditions.

Conditions to avoid: Heat, sparks, flames.

Hazardous decomposition products: Fire or high temperatures create toxic gases/ vapours/fumes of carbon monoxide (CO), oxides of nitrogen, hydrogen cyanide (HCN), nitrous gases (NOx).

Special precautions: Avoid contact with water.

Materials to avoid: Acids, amines, bases, inorganic alkalis, alcohols, glycols, water, steam.

11. Toxicological Information

11.1 Short Term Effects

Eye Contact

Irritating to eyes.

Skin Contact

Irritating to skin. May cause sensitisation by skin contact.

Inhalation

Harmful by inhalation. May cause sensitisation by inhalation. Irritating to respiratory system.

Ingestion

May cause discomfort if swallowed.

11.2 Chronic Effects

This chemical can be hazardous when inhaled and/or touched. Prolonged inhalation and/or repeated exposure of high concentrations may cause chronic upper respiratory irritation, asthma and/ or pulmonary sensitisation. Recognised allergen. Irritating to skin. May cause severe irritation to eyes.

11.3 Medical Symptoms

Eyes and Mucous Membranes

Irritation, burning, lachrymation, blurred vision after liquid splash.

Respiratory System

Severe pulmonary irritation. General respiratory distress. Unproductive cough.

Skin

Severe skin irritation.

Digestive System

Nausea, vomiting, severe abdominal pain.

11.4 Medical Considerations

Skin disorders and allergies. Chronic respiratory and obstructive airway disease. Employees ought to be examined by a physician prior to work with diisocyanates. Allergic reactions may develop after inhalation of low concentrations and also several hours after exposure. Regular medical checks including lung function are recommended for long term and repeated use.

12. Ecological Information

12.1 Ecotoxicity

Not regarded as dangerous for the environment.

Isocyanates react with water to form an insoluble polyurea which is chemically and biologically inert. The product components are not classified as environmentally hazardous.

However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Disposal Considerations

Dispose of waste and residues in accordance with local authority requirements. Do not allow runoff to sewer, waterway or ground.

14. Transport Information

Classification for conveyance: Not required.

Not a marine pollutant.

15. Regulatory Information

15.1. Chemicals (Hazard Information & Packaging) Regulations

Classification: Harmful.

15.2 Contains

Polymeric diphenylmethane diisocyanate.

15.3. Risk Phrases

- Harmful by inhalation.
- Irritating to eyes, respiratory system and skin.
- May cause sensitisation by inhalation and skin contact.

• R20; R36/37/38; R42/43.

15.4. Safety Phrases

- Do not breath vapour/spray.
- In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
- Wear suitable protective clothing and gloves.
- This material and its container must be disposed of as hazardous waste.
- Contains isocyanates. See information supplied by the manufacturer.
- Do not allow ingress of moisture - risk of pressure build up.
- S23; S45; S36/37; S1/2; S60; P4; U5.

16. Legislation and Other Information

• Health & Safety at Work Act 1974.

• Control of Substances Hazardous to Health (Regulations).

• HSE Guidance Note EH40 (Workplace Exposure Limits).

• Any authorised manual on First Aid by St. Johns/St. Andrews/Red Cross.

• Manual Handling Operations Regulations 1992.

• Environmental Protection Act.

• Dangerous Substances Directive 67/548/EEC.

• Isocyanates toxic hazards and precautions EH16.

17. Other Information

Revisions

None.

Revision Date

Not applicable.

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