

## EC400 Part B - Adhesive component

A quality, cost efficient, high performance hygienic wall and ceiling systems that you can rely on. Our comprehensive cladding range offers a dependable, simple and attractive solution.

### *product information*

Name: EC400 Part B - Adhesive Component  
Other names: EC400 Part B - Adhesive Component  
Abbreviation ISO 1043: -

### *this document contains*

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# EC400 Part B - Adhesive Component

<p><b>BASE</b> Polyurethane</p>
<p><b>SOLVENTS</b> None.</p>
<p><b>VISCOSITY @ 20°C</b> (A): Thick Paste (B): Liquid</p>
<p><b>FLAMMABILITY</b> N/A</p>
<p><b>SERVICE TEMP</b> -40°C - +130°C</p>
<p><b>APPLICATION TEMP</b> MIN. +10°C MAX. +30°C</p>
<p><b>SPECIFIC GRAVITY @ 20°C</b> (A): 1.70 - 1.73 (B): 1.21 - 1.23</p>
<p><b>SHELF LIFE</b> 6 months @ 5°C - 25°C</p>

## DESCRIPTION

A two-component polyurethane adhesive. The formulation has been designed to give ease of mixing for notched scraper applications. This filled adhesive has been formulated for the bonding of uPVC and GRP sheets to most building substrates, including brickwork, plaster, concrete, blockwork, etc.

## APPLICATION

### Preparation

Surfaces must be clean, dry and free from any contaminants liable to impair adhesion. New build structures should be allowed to dry out for at least 6 weeks prior to application of EC400 and should then have a moisture content on the surface and in the core of less than 14%. Very porous substrates may be sealed with a dilution of PVA. Ensure that the PVA is completely dried out (at least 8 hours) prior to application of EC400.

All materials should be allowed to acclimatise for at least 24 hours before bonding. The sheeting, air temperature, and substrate should all be close to the final operational temperature of the building prior to application to avoid stresses from expansion of the plastic sheeting.

### Method of application

EC400 is supplied as a 6.5 kg pack. The mix ratio 12:1 by weight. Normally, Part A is contained in a 5L bucket and part B in a sealed sachet. Once mixed the pot life is 10 minutes @ 20°C (Longer at lower temperatures.) and so substrate preparation should be complete before mixing. Add all of the part B to the part A and stir until a uniform colour is achieved ensuring that the sides are scraped down often during mixing. When mixed, apply the adhesive to one surface only. Apply to sheet with a 6mm notched trowel and apply immediately to the substrate smoothing outwards from the centre.

## BONDING / PRESSURE RANGE

Apply pressure as necessary to hold the substrates in contact until curing has occurred. Allow 4-6 hours for full cure (longer if temperatures are below 15°C). Mixed adhesive should be used within 30 minutes.

## HANDLING AND STORAGE

Part A - 6 months in unopened containers. Store between 5°C and 25°C  
Part B - 6 months in unopened containers. Store between 5°C and 25°C.

## COVERAGE

For cladding walls with PVC sheeting, use 1 x 6.5Kg kit for every 2.5M2 sheet.

## Safety properties

### Substance/preparation and Company detail

EC400 PART B Adhesive component

### Hazards identification

#### Classification of the substance or mixture

Classification under CHIP: Xn: R20; Xi: R36/37/38; Xn: R40; Sens.: R42/43; Xn: R48/20

Classification under CLP: Carc. 2: H351; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1:

H317; STOT RE 2: H373; STOT SE 3: H335; Acute Tox. 4: H332; Unst. Expl.: EUH204

Most important adverse effects: Harmful by inhalation. Irritating to eyes, respiratory system and skin. Limited evidence of

a carcinogenic effect. May cause sensitisation by inhalation and skin contact. Harmful:

danger of serious damage to health by prolonged exposure through inhalation.

#### Label elements

Label elements under CLP:

Hazard statements: H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H332: Harmful if inhaled.

H319: Causes serious eye irritation.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335: May cause respiratory irritation.

H351: Suspected of causing cancer.

H373: May cause damage to organs through prolonged or repeated exposure.

EUH204: Contains isocyanates. May produce an allergic reaction.

Signal words: Danger

Hazard pictograms: GHS07: Exclamation mark

GHS08: Health hazard



Precautionary statements: P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P304+341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+313: IF exposed or concerned: Get medical advice/attention.

Label elements under CHIP:

Hazard symbols: \* Harmful.



## Safety properties

### Hazards identification

Risk phrases: \* R20: Harmful by inhalation.  
 R36/37/38: Irritating to eyes, respiratory system and skin.  
 R40: Limited evidence of a carcinogenic effect.  
 R42/43: May cause sensitisation by inhalation and skin contact.  
 R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.  
 Safety phrases: \* S23: Do not breathe fumes.  
 S36/37: Wear suitable protective clothing and gloves.  
 S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
 S63: In case of accident by inhalation, remove casualty to fresh air and keep at rest.  
 Precautionary phrases: \* Contains isocyanates. See information supplied by the manufacturer.

### Other hazards

PBT: This substance is not identified as a PBT substance.

### Composition/information on ingredients

Hazardous ingredients:

DIPHENYL METHANE DIISOCYANATE, HOMOLOGUES AND ISOMERS.

EINECS	CAS	CHIP Classification	CLP Classification	Percent
-	9016-87-9	Xn: R20; Xi: R36/37/38; Xn: R40; Sens.: R42/43; Xn: R48/20	Eye Irrit. 2: H319; Acute Tox. 4: H332; Carc. 2: H351; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 3: H335; Unst. Expl.: EUH204	50-70%

#### DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

202-966-0	101-68-8	Xn: R20; Xi: R36/37/38; Xn: R40; Sens.: R42/43; Xn: R48/20	Carc. 2: H351; Acute Tox. 4: H332; Eye Irrit. 2: H319; STOT SE 3: H335; Skin Irrit. 2: H315; Resp. Sens. 1: H334; Skin Sens. 1: H317; STOT SE 2: H371; STOT RE 2: H373	30-50%
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#### DIPHENYLMETHANE-2,4'-DI-ISOCYANATE

227-534-9	5873-54-1	Xn: R20; Xi: R36/37/38; Xn: R40; Sens.: R42/43; Xn: R48/20	Carc. 2: H351; Acute Tox. 4: H332; Eye Irrit. 2: H319; STOT SE 3: H335; Skin Irrit. 2: H315; Resp. Sens. 1: H334; Skin Sens. 1: H317; STOT SE 2: H371; STOT RE 2: H373	1-10%
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## Safety properties

### First aid measures

#### Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

#### Most important symptoms and effects, both acute and delayed

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

#### Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: Eye bathing equipment should be available on the premises.

### Fire-fighting measures

#### Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

#### Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

#### Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

### Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

#### Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

#### Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

#### Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

## Safety properties

### Handling and storage

#### Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Protect against moisture. In all workplaces where high concentrations of aerosols and/or vapors may be generated (e.g. during mold venting or when cleaning mixing heads with an air blast), appropriately located exhaust ventilation must be provided so the WEL is not exceeded.

#### Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed.

#### Specific end use(s)

Specific end use(s): No data available.

### Exposure controls/personal protection

#### Control parameters

Hazardous ingredients:

DIPHENYL METHANE DIISOCYANATE, HOMOLOGUES AND ISOMERS

Workplace exposure limits: Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	0.02 mg/m <sup>3</sup>	0.07 mg/m <sup>3</sup>	-	-

#### DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

UK	0.02 mg/m <sup>3</sup>	0.07 mg/m <sup>3</sup>	-	-
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#### Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

### Physical and chemical properties

#### Information on basic physical and chemical properties

State: Liquid

Colour: Brown

Odour: Perceptible odour

Evaporation rate: Negligible

Solubility in water: Insoluble

Also soluble in: Most organic solvents.

Viscosity: Oily

Boiling point/range°C: 330

Flash point°C: >204

Autoflammability°C: >500

Vapour pressure: <0.01 Pa @ 25 C

Relative density: 1.23

## Safety properties

### Stability and reactivity

#### Reactivity

Reactivity: Stable under recommended transport or storage conditions.

#### Chemical stability

Chemical stability: Stable under normal conditions.

#### Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

#### Conditions to avoid

Conditions to avoid: Heat.

#### Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids. On contact with water, gaseous decomposition products are formed, which cause build-up of pressure in tightly closed containers.

Risk of bursting. Reacts with substances which contain active hydrogen.

#### Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

### Toxicological information

#### Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
DERMAL	RBT	LD50	>5000	mg/kg
ORAL	RAT	LD50	>5000	mg/kg
VAPOURS	RAT	4H LC50	490	mg/l

Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	INH	Hazardous: calculated
Irritation	INH OPT INH DRM	Hazardous: calculated
Sensitisation	INH OPT INH DRM INH DRM	Hazardous: calculated
Repeated dose toxicity	INH OPT INH DRM INH DRM INH	4Hazardous: calculated

## Safety properties

### Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

### Ecological information

#### Toxicity

Ecotoxicity values:

Species	Test	Value	Units
Daphnia magna	48H EC50	>500	mg/l
ZEBRAFISH (Brachydanio rerio)	96H LC50	>1000	mg/l

#### Persistence and degradability

Persistence and degradability: Biodegradable.

#### Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

#### Mobility in soil

Mobility: Readily absorbed into soil.

#### Results of PBT and vPvB assessment

PBT identification: This substance is not identified as a PBT substance.

#### Other adverse effects

Other adverse effects: Negligible ecotoxicity. The product has not been tested. The statement has been derived from the structure of the product.

### Disposal considerations

#### Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Waste code number: 07 02 08

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

### Transport information

Transport class: This product does not require a classification for transport.

### Regulatory information

#### Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Safety properties

### Other information

Other information: Depending on the production parameters, any uncovered surfaces of thermoset moldings produced using this raw material may contain traces of substances (e.g. starting and reaction products, catalysts, release agents) with hazardous characteristics.

Skin contact with traces of these substances must be avoided. When demolding or otherwise handling freshly molded thermoset parts, protective textile gloves must be worn as a minimum.

\* indicates text in the SDS which has changed since the last revision.

This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

Phrases used in s.2 and 3: EUH204: Contains isocyanates. May produce an allergic reaction.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335: May cause respiratory irritation.

H351: Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

R20: Harmful by inhalation.

R36/37/38: Irritating to eyes, respiratory system and skin.

R40: Limited evidence of a carcinogenic effect.

R42/43: May cause sensitisation by inhalation and skin contact.

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.