



Submittal / Substitution Request

Submitted To:

Name: _____

Firm: _____

Project: _____

Submitted Product: **Wej-it Slam-TITE Hammer-In Chemical Capsules**

Specified Product: **Chemical Capsules HMC10-38 HMC30-114 3/8 to 1 1/4**

Section: _____ Page: _____ Detail/Sheet No.: _____

Description of Application:

Attached information includes product description, installation instructions and technical data needed for evaluation of the submittal request.

Submitted By:

Name: _____ Signature: _____

Firm: _____

Address: _____

Phone: _____ Fax: _____

E-Mail: _____

Date of Submittal: _____

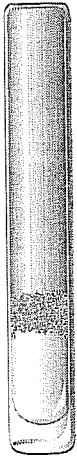
For Architect/Engineer Use:

Approved: _____ Approved As Noted: _____ Not Approved: _____

(Please briefly explain why not approved)

By: _____ Date: _____

Remarks:



Slam-TITE® Hammer-In Chemical Capsules

KEY FEATURES/BENEFITS

- **Easy to Install.** No setting tool necessary, just use a hammer to drive in.
- **Economical.** Minimal waste, use only the amount you require.
- **Reliable.** Works in all types of weather.
- **Mistake Proof.** 3/8" through 5/8" Capsules can be set either end up. Set larger capsules rounded end down.
- **Eliminates Expansion Forces.** Can be used close to a free edge.
- **Clean.** No disposal of excess material necessary.
- **Less Breakage.** Innovative package design.

APPROVALS

TYPE	
State DOT	Contact Customer Service
Approvals	

TECHNICAL INFORMATION

MAXIMUM TENSILE CAPACITIES

THREADED ROD:

Catalog Number	Threaded Rod Diameter (in)	Drill Diameter (in)	Embedment (in)	Tensile Value in 4000 psi Concrete (lbs)
HMC10-38	3/8	7/16	3 1/2	5395
HMC12-12	1/2	9/16	4 1/4	8318
HMC16-58	5/8	3/4	5 1/2	15287
HMC20-34	3/4	7/8	5 3/4	17985
HMC22-78	7/8	1	7	22481
HMC24-1	1	1 1/8	8 1/4	32372
HMC30-114	1 1/4	1 3/8	11	•

REINFORCED BAR:

Catalog Number	Rebar Size	Drill Diameter (in)	Embedment (in)	Tensile Value in 4000 psi Concrete (lbs)
HMC10-38	#3	1/2	3 1/2	6295
HMC12-12	#4	5/8	4 1/4	9217
HMC16-58	#5	3/4	5 1/2	15287
HMC20-34	#6	1	5 3/4	17985
HMC22-78	#7	1 1/8	7	22481
HMC24-1	#8	1 1/4	8 1/4	32372

NOTES:

- Caution: For ultimate anchorage capacity, use lowest value of anchor capacity, concrete capacity or steel strength.
- Information provided only for use of a qualified design engineer. Use of technical data by persons not qualified could cause serious damage, injury, or even death.
- Ultimate values shown. For static loads, use one-third of the maximum tensile and shear capacities for the recommended 3:1 safety factor.
- Tensile strength data verified by FMPA at the University of Stuttgart. Available upon request.

STORAGE RECOMMENDATIONS

For maximum shelf life, Slam-TITE® Hammer-In capsules should be stored in the original packaging, in a temperature controlled environment (23-80 degrees Fahrenheit). For 3/4, 7/8, 1, 1-1/4 must be standing up with white end down. Shelf life of up to 2 years is possible, for 3/8, 1/2 and 5/8 dia.; 1 year on 3/4 and larger, but higher than recommended storage temperatures and exposure to UV rays may adversely affect the polyester resin and significantly reduce shelf life. As long as the resin has a honey-like flow (not jelled), the capsule should perform appropriately. Some crystallization is normal on 3/4 - 1-1/4.

Health	2
Flammable	1
Reactive	0

MINIMUM CURE TIMES

Temperature (degrees Fahrenheit)	Minimum Cure Time
68 and over	10 minutes
50 to 68	20 minutes
32 to 50	1 hour
23 to 32	5 hours

EDGE DISTANCE AND SPACING REQUIREMENTS

Embedment (E) in Anchor Diameters	Spacing	Edge Distance
E ≤ 6d (shallow)	3.5E	1.75E
6d ≤ E ≤ 8d (standard)	2.00E	1.00E
8d ≤ E (deep)	1.50E	0.75E

ORDER INFORMATION

Catalog Number	Nominal Diameter (in)	Capsule Dimensions	Stud Size (in)	Drill Diameter (in)	Rebar Dimensions	Drill Diameter (in)	Capsule Volume (cubic in)	Embedment Depth (in)	Quantity Capsules/Box
HMC10-38	3/8	3/8 x 3 3/8	3/8	7/16	#3	1/2	0.3	3 1/2	10
HMC12-12	1/2	1/2 x 3 3/4	1/2	9/16	#4	5/8	0.6	4 1/4	10
HMC16-58	5/8	5/8 x 3 3/4	5/8	3/4	#5	3/4	1.1	5 1/2	10
HMC20-34	3/4	3/4 x 4 3/4	3/4	7/8	#6	1	2.0	5 3/4	10
HMC22-78	7/8	7/8 x 7	7/8	1	#7	1 1/8	2.9	7	6
HMC24-1	1	1 x 8 1/4	1	1 1/8	#8	1 1/4	4.2	8 1/4	6
HMC30-114	1 1/4	1 1/4 x 11	1 1/4	1 3/8	•	•	11.6	11	2

STUD ASSEMBLIES - STRAIGHT CUT

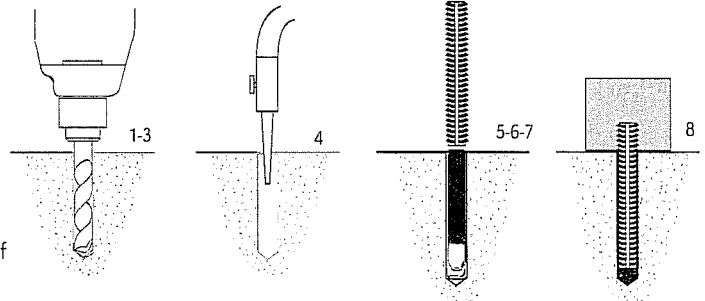
Catalog Number	Dimension (in.)	Quantity Box/Carton		
Carbon Steel	Stainless Steel			
Grade 2	304	316		
CS238-S	CSS38-S	CS638-S	3/8 x 5	50/300
CS212-S	CSS12-S	CS612-S	1/2 x 6 1/4	25/150
CS258-S	CSS58-S	CS658-S	5/8 x 7 1/2	10/60
CS234-S	CSS34-S	CS634-S	3/4 x 9 1/2	10/40
CS278-S	CSS78-S	CS678-S	7/8 x 10 1/4	10/40
CS210-S	CSS10-S	•	1 x 11 3/4	5/20
CS2114-S	•	•	1 1/4 x 14	5/20



Stud Assemblies – Nuts and Washers Included.
For Use with Epoxy and Slam-Tites.

INSTALLATION INSTRUCTIONS

- All surfaces should be clean and free of grease, oil, and moisture. Base materials must be at least 23° Fahrenheit.
- Select the proper size drill bit. Drill the hole perpendicular to the work surface: To assure full holding power, do not ream the hole, or allow the hammer drill to wobble.*
- Hole depth equals embedment depth, see chart or package for proper embedment for each specific anchor, but not closer than two anchor diameters to the bottom (opposite) surface of the concrete.
- Clean the hole using dry compressed air and a clean wire brush. Dust and debris left in hole will significantly reduce the holding capacity of the anchor.
- Insert straight cut stud into hole. Mark stud to indicate hole depth. Remove stud and check for dust accumulation. If dust is found, go back to step 3.
- Check the capsule (resin must flow like honey). The 3/8", 1/2", 5/8" and 3/4" capsules may be set either end down. Set larger capsules rounded end down.
- Tap stud with hammer until capsule breaks, and then drive stud in with hammer until stud is embedded to mark, indicating desired embedment depth.
- Avoid disturbing stud. Allow resin to cure for the specified time before loading stud.



* **Always wear safety glasses.** Follow the drill manufacturer's safety instructions. Use only solid carbide-tipped drill bits meeting ANSI B212.15 diameter standards as listed on back cover.

† Fumes and contact with skin may be harmful.

Trade Name:	STAHL Hammer-in Capsule
Producer/Supplier	Stahl GmbH
Printing Date:	28.06.2001

1. Identification of the substance/preparation and of the company/undertaking**1.1 Description of substance or preparation**

STAHL Hammer-in Capsule SHP M 8 - M 24 A- und B-Compound

1.2 Firm Name

Stahl GmbH, Gerberstr. 18, D - 73650 Winterbach
Telephone 07181/97772-0 Telefax 07181/97772-22

1.3 Telephone in case of emergencies/Office for advice

Alternative contact within the North America:

Wej-it Fastening Systems, 2415 E. 13th Place, Tulsa, OK 74104
Telephone (918) 744-7444 Fax (918) 744-9918

1.3.1 Telephone number of the firm in case of emergencies:

Tel.: 07181/97772-0

Or Wej-it Fastening Systems Telephone (918) 744-7444 Fax (918) 744-9918

2. Composition/information on ingredients**2.1 Chem. name / % content / symbol / R-phrases**

Dibenzoyl peroxide; 30 - 60; E/Xi; 2-7-36-43; CAS 94-36-0
Styrene; 20 - 40; 10-20-36/38; CAS 100-42-5

3. Hazards identification**3.1 To people**

Product is flammable.

Inhaling:

Product is harmful to health.

Skin contact:

May cause sensitization by skin contact.

Product is irritating.

Product is oxidizing.

Eye contact:

Irritation of the eyes.

These details refer to the cartridge before usage.

3.2 To the environment

See point 12.

Toxicity to fish:

LC50 *Leuciscus idus* 35 mg/l/48h (Styrene)

LC50/96h 2 mg/L *Poecilia reticulata* (Dibenzoyl peroxide); NOEC/96h 0,7 mg/l

Toxicity to daphnia:

LC50/96h 3,7 mg/l *Daphnia magna* (Dibenzoyl peroxide)

Toxicity to bacteria:

EC10 *Pseudomonas putida* 250 ul/l/18h (Styrene)

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4. First aid measures

4.1 Inhalation

Remove person from danger area.
Supply person with fresh air.
Keep data sheet available.

4.2 Eye contact

Wash thoroughly for several minutes using ample water (eye wash bottle if possible), call doctor immediately.
Have data sheet available.

4.3 Skin contact

Wash thoroughly with soap and water – consult doctor if necessary.
Remove contaminated clothing immediately.

4.4 Ingestion

Call doctor immediately, have data sheet available.
Delayed effects from exposure can be expected (styrene).

4.5 Special resources necessary for first aid

n.c.

5. Fire-fighting measures

CO₂
Water jet spray
Dry extinguisher

5.2 Unsuitable fire extinguisher for reasons of safety

Water jet

5.3 Special dangers caused by the substance of preparation itself, results of fire/burning, or ensuring gases

In case of fire the following can develop:
Gases hazardous to health.
Carboxylic acids.
Oxides of carbon.
Organic decomposition products.
Flammable vapour/air mixtures.
Vapours hazardous to health.

5.4 Special protective equipment for fire fighting

Protective respirator with independent air supply.
According to size of fire.
Full protection, if necessary.

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6. Accidental release measures

6.1 Personal precautions

Remove possible causes of ignition – do not smoke.

Avoid contact with eyes or skin.

Caution – possibility of sliding.

Provide sufficient fresh air.

6.2 Environmental measures

Prevent from entering drainage system.

If leakage occurs, dam up.

6.3 Procedure for cleaning up

Collect using absorbant material (e.g. Universal binding medium) and dispose according to point 13. Collect mechanically and dispose according to point 13.

7. Handling and storage

7.1 Handling

Tips for safe handling:

Only use working methods according to operating instructions.

Keep away from sources of ignition – do not smoke.

General hygiene measures for the handling of chemicals are applicable.

7.2 Storage

Not to be stored in gangways or stair wells.

Only store products unopened, in original packing.

Observe TRGS 515.

Special storage conditions:

See point 10.2.

Store cool.

Do not store over 25° C.

Danger of explosion by storing in sealed containers.

Protect against moisture and store closed.

8. Exposure controls/personal protection

Chem. name / % content / MAK-value / TRK-value / BAT-value

Dibenzoyl peroxide; 30 - 60; MAK 5 mg/m³ = 1

Styrene; 20 - 40; MAK 20 ppm (86 mg/m³); BAT 600 mg/g

8.1 respiration protection If MAK-value is exceeded. A or A - P 2.

8.2 Hand protection: Protective PVC gloves.

8.3 Eye protection,
face protection: Tightly fitting protective goggles with side protection.

8.4 Body protection: Protective working garments.

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9. Physical and chemical properties

Physical state:	B: solid, powder A: liquid
Colour:	B: red A: yellow
Odour:	B: odourless A: characteristic
pH-value:	B: 7
Boiling point/range (in ° C):	B: decomposition > 60 (SADT) A: 145 (Styrene)
Melting point (in ° C):	B: ≈ 55 A: -31 (Styrene)
Flash point in ° C:	A: 31 (Styrene)
Autoflammability:	B: No
Oxidizing properties:	B: Yes A: No
Minimum limit of explosion:	A: 1,1 Vol% (Styrene)
Maximum limit of explosion:	A: 8,9 Vol% (Styrene)
Vapour pressure:	A: 6 hPa/20° C (Styrene)
Relative density (g/cm ³):	A: 1,15/20° C
Bulk density (kg/m ³):	A: 630/20° C
Solubility in water:	A/B: Insoluble
Viscosity:	A: 2200 mPas/23° C
A = Resin compound B = Peroxide compound	

10. Stability and reactivity

10.1 Conditions to avoid

see point 7.

Heating > 60° C – exothermic decomposition/polymerisation.

Protect from humidity.

Heating, open flame, ignition sources.

10.2 Material to avoid

See point 7.

Avoid contact with other chemicals.

Rust, bases, amines, acids – violent reaction.

Heavy metal salts.

Avoid contact with strong alkalis.

Avoid contact with oxidizing agents.

10.3 Hazardous decomposition products

See point 5.3

10.4 Additional information

Stabilizers necessary: Yes

Stabilizers available: Yes

Effects of changes in physical state,
on safety: Yes

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11. Toxicological information**11.1 Acute toxicity**

- | | |
|--|-----------------------------|
| 11.1.1 Ingestion, LD50 rat oral (mg/kg): | n.d.a. |
| 11.1.2 Inhalation, LC50 rat inhaling(mg/l/4h): | n.d.a. A: harmful to health |
| 11.1.3 Skin contact, LD50 rat dermal (mg/kg): | k.D.v. A: Irritant |
| 11.1.4 Eye contact | A/B: Irritant |

11.2 Chronic effects

- | | |
|-------------------------------|--------|
| 11.2.1 Sensitization: | B: Yes |
| 11.2.2 Carcinogenicity: | n.d.a. |
| 11.2.3 Mutagenicity: | n.d.a. |
| 11.2.4 Reproductive toxicity: | n.d.a. |
| 11.2.5 Narcosis: | n.d.a. |

11.3 Further information

Classification according to calculation method.

12. Ecological information

- | | |
|----------------------------------|--|
| 12.1 Water hazard class: | B: 1 A: 2 |
| 12.2 Self classification: | Yes (VwVwS) |
| 12.3 Degradability: | CE50/30 Min. 35 mg/l
(degradability of activated sludge
(Dibenzoyl peroxide) |
| 12.4 Behaviour in sewage plants: | n.d.a. |
| 12.5 Aquatic toxicity: | see point 3 |
| 12.6 Ecological toxicity: | see point 3. |

13. Disposal considerations**13.1. for the material/preparation/residue**

EC disposal code no. 08 04 04 (hardened adhesives and sealants)

Recommendation:

Pay attention to local and national official regulations.

E.Gg. dispose at suitable refuse site.

13.2 For contaminated material

See point 13.1

Pay attention to local and national official regulations.

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14. Transport information**General statements**

UN-Number 3269

Road/Rail-transport (GGVS/ADR/GGVE/RID)

GGVS/ADR: 3/31c (class/number)

3269 polyester resin kit

Transport by sea

GGVSee/IMDG-Code: 3.3/3377-1/III (class/code/packing group)

EmS-No.: 3-07

MFAG-No.: 310

Marine Pollutant: Yes

Polyester resin kit (Styrene monomer, inhibited)

Transport by air

IATA: 3/-/III (class/code/packing group)

Polyester resin kit

Additional information:**Minimum amount regulations have not been taken into account.**

Danger code and packing code on request.

15. Regulatory information**Classification according to Dangerous Product Regulations (67/548/EWG and 88/379/EWG)**

Symbol: B: Xn/O A: Xn

Description of danger:

Compound B:

Harmful to health

Oxidizing

Compound A:

Harmful to health

R-phrase:

Compound B:

7 May cause fire.

36 Irritating to eyes.

43 May cause sensitization by skin contact.

Compound A:

10 Flammable.

20 Harmful to health on inhalation.

36/38 Irritant to eyes and skin.

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S-phrases:

Compound B:

(2) Keep out of the reach of children.

3/7 Keep container tightly closed in a cool place.

14 Keep away from dirt, rust, alcalis, acids and accelerators (like heavy metal salts and amines).

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

(46) If swallowed, seek medical advice immediately and show this container or label.

Compound A:

(2) Keep out of the reach of children.

23.f Do not breathe vapour /aerosol.

36/37/38 Wear suitable protective clothing, gloves and eye/face protection.

(46) If swallowed, seek medical advice immediately and show this container or label.

51 Use only, where sufficient fresh air is provided.

Additions:

B: Dibenzoyl peroxide A: Styrene

VbF:

n.a.

Observe restrictions:

Yes

16. Other details

These details refer to the product as it is delivered.

Obersve disruptive incident regulation

Oberserve „Organic Peroxide“ (VBG 58)

Storage class VCI: 5.2

Revised points: n.a.

Legend:

n.a. = not applicable / n.c. = not checked / n.d.a. = no data available

VbF = regulations for flammable liquids / MAK = maximum concentration per work place in ml/m³ = ppm

BAT = biological tolerance for work places / TRbF = technical regulations for flammable liquids

WGK = water hazard class

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics, but they are based on our present up-to-date knowledge. No responsibility.