



TYPE HTC HEAT TRANSFER CEMENT

HTC-20, & 30 CEMENT:

HTC-20 & 30 heat transfer cements are putty-like materials of high strength and high thermal conductivity. When cured, these materials become very hard, yet remain water soluble unless taken to a temperature above 450°F. Entirely inorganic, they will not decay and will not burn or support combustion. They begin to fuse and evaporate at 1 500°F. These cements when applied to metal surfaces will withstand considerable shock, and provide a corrosion resistant covering against most environments.

It is recommended that these cements be stored at a temperature between 40 and 90°F in order to maintain the optimum working properties. Being subject to freezing will not cause any damage. Shelf life should be at least 12 months if cement is moist and can be tightly sealed. Added properties are as shown in the table.

Prior to application all surfaces must be cleaned. Remove loose paint, rust, scale, mill varnish, grease, etc. Use a wire brush if necessary. When using putty knife or trowel to apply cement, keep tool wet by dipping in water or wiping with damp cloth. Apply a uniform coating free of voids or air bubbles. Protect exposed locations from weather.

A small amount of water will thin these cements. Tools may be cleaned with water. These cements when troweled in place on metals show excellent adhesion. On vertical and overhead surfaces the adhesion is excellent, but the application of a thick coat to large flat areas is facilitated by reinforcing with 1 in. chicken wire anchored about 1/4 in. from the surface. Lower temperatures improve the adhesiveness, but do not apply on surfaces at temperatures below 20°F because the cement freezes and dries very slowly. If cement has frozen, be sure it is thoroughly thawed and mixed when applied. Cements are good as long as they will adhere. Keep contents moist and cans sealed when not in use.

HTC-50, WATERPROOF CEMENT:

HTC-50 is a non-hardening, waterproof heat transfer cement requiring no cure. This cement is recommended where it is necessary to maintain good contact between two surfaces that are subject to expansion cycles. It is easily applied with a trowel or caulking gun at any temperature between 5 and 350°F. If the surfaces being mated are rusty or corroded, the cement will act as a protective coating. Because the strength is relatively low it is usually used between two surfaces that are held together such as plate coils on tanks.

In application, it is not necessary that the surfaces be clean of grease or rust free. No cure is required and it is not necessary to keep the container sealed as the cement will not dry and can be stored indefinitely. No mixing is necessary before or during application, and freezing causes no harm. Apply only as much as is needed to give good contact and to keep out air. The cement will extrude easily from between the plate coil and the tank leaving a thin film which assures maximum heat transfer.

PROPERTIES:

	HTC-20	HTC-30	HTC-50
Thermal conductivity (BTU-in./hr.-sq.ft.-°F)	90	80	45
Compressive Strength (lbs/sq.in.)	1100	1100	-
Maximum use temperature (°F)	750	1250	350
Minimum use temperature (°F)	-300	-300	-116
Weight/Gal., Uncured (lbs)	15.0	25.0	10.0
Weight/Gal., Cured (lbs)	12.4	24.2	10.0
Color	black	grey	black
Grain Size	fine	fine	fine
Water Soluble	yes	yes	no

These cements are slightly alkaline. Protect eyes and wash from hands.

The amount of cement required between flat surfaces and for pipe tracing is shown in the following tables.

MATED FLAT SURFACES

CEMENT THICKNESS (in.)	GAL. PER SQ.FT.
1/16	.043
1/8	.086
1/4	.172

PIPE TRACING

TRACE DIAMETER	FEET PER GAL.
.195	66.7
.246	52.6
.340	30.3
.402	19.6

TO CURE HTC-20 & 30

Allow to air dry 4 hours, then apply heat at any temperature up to 200°F; for 4 hours to 24 hours if 180 to 200°F is used, longer at lower temperatures. The tracer unit can be used to cure the cement by energizing at a reduced voltage so as not to overheat.

Do not heat above 212°F until completely cured, which is evident when the cement is very hard or will not give to pressure of finger or pencil. The curing process involves driving off moisture. If the cement boils it becomes porous and heat transfer capabilities are reduced.

TO ORDER:

Type HTC cements are put up in one and five gallon pails. To specify, indicate the cement type and the can size. HTC-20-5 is a five gallon pail of HTC-20 cement.

Other heat transfer materials are available:

HTF-300-3, A 300 ft. Roll of 3" wide, mastic backed, heat transfer foil. (Refer to bulletin L-110)

SAFETY DATA SHEET
HEAT TRANSFER MASTIC HTC-20

L-173
June 9, 2015

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: HTC-20
MANUFACTURER: Trasor Corp.
ADDRESS: P.O. Box 470522 Tulsa, OK 74147
EMERGENCY PHONE: 918-258-1551
FAX PHONE: 918-251-6079
PRODUCT USE: HEAT TRANSFER MASTIC

SECTION 2: HAZARDS IDENTIFICATION

NFPA HAZARDS IDENTIFICATION: HEALTH: 1 WHMIS CLASS: NOT CONTROLLED
FIRE: 0
REACTIVITY: 0

MAY CAUSE IRRITATION OF THE SKIN AND EYES ON CONTACT. MAY CAUSE IRRITATION TO MUSCOUS MEMBRANES OF MOUTH, THROAT, ESOPHAGUS AND STOMACH IF INGESTED.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:

	<u>CAS NO.</u>	<u>% WT</u>	<u>EXPOSURE LIMITS</u>
NATURAL GRAPHITE	7782-42-5	30-60%	5mg/m3 TLV
BALL CLAY	1332-58-7	20-30%	
SODIUM SILICATE	1344-09-08	30-60%	

SECTION 4: FIRST AID MEASURES

EYES: FLUSH WITH WATER FOR 15 MINUTES. CONTACT A PHYSICIAN IF IRRITATION CONTINUES.
SKIN: WASH WITH SOAP AND WATER OR WATERLESS HAND CLEANER
INGESTION: DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION.

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT: NA FLAMABLE LIMITS(F) NOT DETERMINED
EXTINGUISHING MEDIA: WATER FOG, CO2 DRY CHEMICALS, FOAM
SPECIAL FIRE FIGHTING PROCEDURES: NA
UNUSUAL FIRE AND EXPLOSION HAZARDS: NA

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: ALWAYS WEAR PROTECTIVE EQUIPMENT WHEN HANDLING THIS MATERIAL.
ENVIRONMENTAL PRECAUTIONS: PREVENT DISCHARGE TO SEWER SYSTEMS AND STREAMS.
METHODS FOR CLEAN-UP: SCRAPE-UP AND PLACE IN A CONTAINER FOR DISPOSAL.

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SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: KEEP CONTAINER CLOSED WHEN NOT IN USE. STORE AT NORMAL ROOM TEMPERATURES.

OTHER PRECAUTIONS: WEAR GOGGLES AND RUBBER GLOVES IN SITUATIONS WHERE CONTACT IS POSSIBLE.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION : NOT NORMALLY REQUIRED. USE LOCAL EXHAUST IF REQUIRED

RESPIRATORY PROTECTION: NOT NORMALLY REQUIRED. USE NIOSH APPROVED IF REQUIRED

EYE PROTECTION: SAFETY GOGGLES RECOMMENDED

SKIN PROTECTION: AVOID CONTACT WITH SKIN, EYES AND CLOTHING

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: WORK COVERALLS

WORK HYGIENIC PRACTICES: PRACTICE SAFE INDUSTRIAL HYGIENE PROCEDURES WHEN HANDLING THIS PRODUCT

OTHER: SAFETY SHOWER AND EYE WASH FOUNTAIN SHOULD AVAILABLE.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: BLACK GRAINED SEMI-FLUID

ODOR: SLIGHT

PHYSICAL STATE: PASTE

BOILING POINT: 212F (100C)

MELTING POINT: NA

FREEZING POINT: NA

VAPOR DENSITY (AIR = 1): GREATER THAN 1

SPECIFIC GRAVITY (H2O = 1): 1.7

EVAPORATION RATE: NA

SOLUBILITY IN WATER: YES

PERCENT VOLATILE: NIL

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SECTION 10: STABILITY AND REACTIVITY

	<u>STABLE</u>	<u>UNSTABLE</u>
STABILITY:	X	
INCOMPATIBILITY (MATERIAL TO AVOID):		MAY REACT WITH STRONG ACIDS OR STRONG OXIDIZING AGENTS
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:		NONE KNOWN OR EXPECTED
HAZARDOUS POLYMERIZATION:		NO
CONDITIONS TO AVOID (POLYMERIZATION):		NA

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: EYES..MAY CAUSE IRRITATION IF NOT TREATED SKIN..MAY CAUSE IRRITATION WITH CONTINUED CONTACT INGESTION..IRRITATION TO MUCOUS MEMBRANES OF MOUTH, THROAT, ESOPHAGUS AND STOMACH

SECTION 11 NOTES: REPEATED OR PROLONGED EXPOSURE TO THIS COMPOUND IS NOT KNOWN TO AGGRAVATE MEDICAL CONDITIONS. THIS PRODUCT'S INGREDIENTS ARE NOT REGULATED AS CARCINOGENS BY OSHA.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: EFFECT OF LOW CONCENTRATIONS ON AQUATIC LIFE IS UNKNOWN. DISCHARGES TO STREAMS OR SEWER SYSTEMS SHOULD BE PREVENTED.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: CONTAIN ANY SPILLS. SCOOP-UP AND ABSORB ANY RESIDUAL MATERIAL WITH ABSORBENTS. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION
PROPER SHIPPING NAME: NOT REQUIRED
HAZARD CLASS: NONE
ID NUMBER: NOT REQUIRED
PACKING GROUP: NONE
LABEL STATEMENT: NA

SECTION 14 NOTES: NOT LISTED IN THE US HAZARDOUS MATERIALS SHIPPING REGULATIONS (49CFR) THERE ARE NO KNOWN LOCAL, STATE, FEDERAL OR INTERNATIONAL SHIPPING RESTRICTIONS ON THIS PRODUCT

SECTION 15: REGULATORY INFORMATION

DOES NOT CONTAIN ANY INGREDIENTS DESIGNATED AS PROBABLE HUMAN CARCINOGENS.

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SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

PREPARATION INFORMATION: BY Trasor Corp.
TELEPHONE: USA 918-258-1551

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SAFETY DATA SHEET
HEAT TRANSFER MASTIC HTC-30

L-174
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