THIS DATA COMPRISES 2 SHEETS
SHEET 1

TYPE:	A highly reactive unsaturated inter penetrating network copolymer enhanced with glass flake, polyethylene and PTFE.
SUGGESTED USE:	High temperature immersion conditions with pH lower than 10, HN4 is suitable for spray application of process vessels, pipework, structural steel and concrete. It can also be used as a gel coat to GRP pipework and fabrications to give increased temperature resistance. HN4 will handle a wide range of chemical environments.
LIMITATIONS:	Not suitable for highly alkaline solutions and some polar solvents.
HEALTH & SAFETY:	Before handling or using this product the material safety data sheet should be read and all precautions observed.
SURFACE PREPARATION:	The surface to be coated should be free from grease and other contaminants. Particular care should be taken to ensure good radii are formed on all protrusions and edges to prevent coating stress cracking at high temperature. Metal should be grit blasted to a minimum Swedish Standard SIS 05 5900 SA 3 with a grit profile of at least 75 microns. All blast residues should be removed by vacuuming. Coating of the substrate should then take place as soon as possible. For full Surface Preparation details see the relevant specification sheets for Surface Preparation.
APPLICATION EQUIPMENT:	Graco King 45:1 or similar airless pump, 10mm diameter ($^3/_8$") nylon lined. Large bore mastic type (Graco Golden) gun with 30 to 60 thou reversible tip. It is essential that equipment is in good working order and is not contaminated with other products. Because of the low lubricity of this product, pump seals may encounter rapid wear and new leather seals should be utilised at the start of each application wherever possible.

APPLICATION:	Corroglass HN4 must only be applied to a correctly prepared substrate. Particular care should be taken to ensure that all blast residues are removed and that no deterioration from the SA 3 standard has occurred before application. Wet films should be applied between 500 and 1000 microns in multiple layers to the specified DFT for the environment. HN4 should not be used in films with total DFT of less than 1000 microns on metal substrates without reference to Corrocoat technical staff. Dyes should only be used in intermediate layers for distinction. Dyes should be used sparingly to avoid degradation of the coating's performance. Where in doubt, consult Corrocoat Technical Services. Materials should only be applied when the surface temperature is above 10°C. The surface temperature should be 5°C above Dew Point and relative humidity below a value of 85%. Air temperature should be in excess of 15°C.
MIXING RATIO/MIXING:	100:2 base to hardener. For use on inhibitor and mixing instructions, refer to Polyglass Application data sheet.
POT LIFE:	Approximately 45 minutes at 20°C but will vary dependent upon site conditions. Refer to Polyglass Application data sheet.
THINNERS:	**DO NOT THIN. THE ADDITION OF STYRENE MAY SUBSTANTIALLY AFFECT THE PERFORMANCE OF THIS PRODUCT. NO OTHER DILUTENT OR THINNER SHOULD BE USED. THE USE OF ACETONE OR SIMILAR THINNERS IN CORROGLASS HN4 WILL SEVERELY AFFECT PRODUCT PERFORMANCE.**
PACKAGING:	20 litre drums only.
STORAGE LIFE:	**Product:** 12 months stored at temperatures below 20°C and away from radiating heat sources or direct sunlight (see Shelf Life Information Sheet). **Catalyst:** 3 months under conditions as above.
COLOUR AVAILABILITY:	Unpigmented (translucent brown) or pigmented white. Dyes can be used to effect colour change where temperature and chemical resistance are not of paramount importance.
RECOMMENDED DFT:	1.0mm to 3.0mm in multiple coats, dependent upon environment.

THIS DATA COMPRISES 2 SHEETS
SHEET 2

THEORETICAL SPREADING RATE:	1.35m²/litre at 750 microns.
VOLUME SOLIDS:	This material contains volatile liquid convertible to solids. Volume solids obtained will vary dependent upon polymerisation conditions. Nominally 99.78% of the contents are convertible to solid.
PRACTICAL SPREADING RATE:	1.04m²/litre at 750 microns on smooth steel. Irregular surfaces will require more product to achieve the same thickness. **Note:** This information is given in good faith but may increase dependent upon environment conditions, the geometry and nature of work undertaken and the skill and care of application. Corrocoat accept no responsibility for any deviation from these values.
SPECIFIC GRAVITY:	Base: 1.27 gms/cc Hardener: 1.09 gms/cc Mixed Product: 1.27 / cc
FLASH POINT:	32°C
CATALYST TYPE:	Special peroxide blend Corrocoat type P5. **Note**: the shelf life of this catalyst is strictly limited to 3 months.
MIXING RATIO:	100:2 base to catalyst
HARDNESS:	26 Barcol (minimum) after 4 days. Nominal 35.
ELONGATION:	0.4% at 20°C
THERMAL COEFFICIENT OF LINEAR EXPANSION:	11.9×10^{-6}/°C
MOISTURE VAPOUR TRANSMISSION RATE:	0.939×10^{-2} gms/hr/m² (0.0016 perm inches)
THERMAL CONDUCTIVITY:	0.285 W/m°K
DIELECTRIC STRENGTH:	Approximately 18 kV at 1mm film. Arc resistance 60 seconds minimum.
VOLUME RESISTIVITY:	7×10^{16} ohms/cm
TEMPERATURE LIMITS:	Immersed: 140°C Non-immersed: 180°C

HEAT DISTORTION TEMPERATURE:	ASTM D 648-56 >160°C
OVER-COATING:	May take place as soon as previous coat has gelled sufficiently to resist movement of next application and whilst still tacky. Maximum over-coating without treatment 3 days. Shorter at ambient temperatures above 30°C. Once the maximum overcoating time has been reached, the adhesion values attained by any subsequent coat will reduce dramatically. It is important to observe maximum overcoating times and note these will vary with climatic conditions. Any further application of coating at this juncture should be treated as a repair, with the surface flashed over to provide a physical key. Styrene cannot be used to reactivate the surface and may in some cases impair adhesion.
CLEANING FLUID:	Acetone or Methyl Ethyl Ketone before gel. Trichloroethane after gel.
CURE TIME:	At 20°C gel will occur within 6 hours and 95% cure will be attained within 96 hours. Full cure can only be achieved by post cure heat treatment, for many service environments this is essential. It is important that post cure is not undertaken less than 96 hours after application of the final coat. Post cure with dry heat at temperatures between 60°C and 70°C for a period of between 4 & 8 hours. Final cure is only achieved by extended time at a temperature in excess of 105°C. Provided the vessels are entered into service within one month of application and the service temperature is above this value, it is generally acceptable to use an elevated service temperature to complete the cure cycle. Failing this, it may be necessary to use a dry heat post cure at or above 105°C for a period in excess of 20 hours. During any post cure schedule temperatures should be raised and lowered gradually and the coatings should not be thermally shocked. Refer to Corrocoat Technical Services for further information. After full post cure has been achieved, the coating will withstand full temperature conditions and rapid temperature changes. It should be noted that HN is not suitable for low temperature service due to the coating becoming embrittled at low temperatures. We therefore do not generally recommend this product for service temperatures below 10°C.

Reviewed 05th October 2001 – No changes