









#### **DESCRIPTION:**

MODIFIED POLYETHER TECHNOLOGY. IT IS AN ODORLESS, ONE PART ADHESIVE SEALANT SUITABLE FOR ALL KIND OF INDUSTRIAL APPLICATIONS EVEN IN ADVERSE CONDITIONS. IT HAS HIGH BOND STRENGTH AND PRIMERLESS ADHESION ON MOST TYPE OF SUBSTRATES OR MOIST SURFACES. IT CAN BE PAINTED WITH MOST KIND OF PAINTS AND HAS SUPERIOR WEATHERABILITY IN ALL CLIMATES. IT HAS A WIDE TEMPERATURE RANGE AND WILL NOT FORM BUBBLE WITHIN SEALANT EVEN IN A HIGH HUMIDITY CONDITION. IT IS AN IDEAL PRODUCT FOR ALL IN ONE INDOOR AND OUTDOOR BONDING AND SEALING PURPOSES.

#### **FEATURES**

- HIGH MODULUS AND HIGH SHORE A HARDNESS
- PERMANENTLY FLEXIBLE & NON-SHRINKAGE
- NON-BLEEDING & CRACK RESISTANT
- ♦ NO VISIBLE STAIN EVEN ON POROUS SUBSTRATE
- FREE OF ISOCYANATE, SOLVENT, ACID AND SILICONE OIL
- ♦ EXCELLENT UV AND WEATHER RESISTANCE
- ♦ NO BUBBLE FORMATION WITHIN SEALANT
- ♦ CAN BE APPLIED ON DAMP SURFACES
- PRIMERLESS ADHESION ON MOST SUBSTRATES

#### **USES:**

MS-604 IS SPECIALLY DEVELOPED AS A UNIVERSAL SEALANT FOR SEALING CONSTRUCTION CONNECTION AND EXPANSION JOINT ON MOST BUILDING MATERIALS SUCH AS CONCRETE, BRICKWORK, ALUMINIUM, STAINLESS / MILD OR GALVANISED STEEL, DOOR OR METAL FRAMES, AND CERAMICS. IT'S ALSO SUITABLE FOR SEALING AND BONDING IN AUTOMOTIVE INDUSTRY.

DUE TO A LARGE VARIETY OF DIFFERENT COATINGS AND SUBSTRATES, WE RECOMMEND PRELIMINARY COMPATIBILTY TESTS PRIOR TO APPLICATION TO ACHIEVE DESIRABLE RESULTS.

# **JOINT DESIGN:**

THE SPECIFIED SEALANT BEAD SIZE SHOULD BE CALCULATED TO COMPLY WITH THE COMPRESSION AND EXTENSION CAPABILITIES OF THE SEALANT IN RELATION TO THE ANTICIPATED JOINT WIDTH DIE TO EXPANSION AND CONTRACTION.

MS-604 HAS A MOVEMENT ACCOMODATION FACTOR (MAF) OF 20%. THE THEORETICAL MINIMUM JOINT WIDTH MAY BE CALCULATED

$$W = \frac{M}{MAF/100} + M$$

M = EXPECTED MAXIMUM WORKING MOVEMENT OF

MAF = MOVEMENT ACCOMODATION FACTOR OF SEALANT





# MS-604 MS HYBRID SEALANT-HM



A MINIMUM OF 6MM SUBSTRATE SEALANT BOND IS NECESSARY TO ENSURE ADEQUATE ADHESION AND ACCOMMODATE MOVEMENT. JOINT DEPTH SHOULD NOT LESS THAN 6MM AND NOT GREATER THAN 10MM. USE 2:1 WIDTH TO DEPTH RATIO UP TO 20MM IN WIDTH. BACKER MATERIAL SHOULD BE INSTALLED TO PREVENT 3 SIDE ADHESION AND TO CONTROL SEALANT DEPTH.

SUITABLE JOINT DEPTH VS WIDTH: 6MM X 6MM 6MM X 12MM 10MM X 20MM

#### **APPLICATION:**

- SUBSTRATES MUST BE CLEAN, DRY AND FREE FROM GREASE. REMOVE ALL DIRT, OIL, GREASE, DETERGENTS AND LOOSE MATERIAL.
- THE JOINT EDGES CAN BE MASKED WITH TAPE TO PREVENT CONTAMINATION OF ADJACENT SUBSTRATES. THE TAPE SHOULD BE REMOVED CAREFULLY AFTER TOOLING.
- CUT TIP OFF CARTRIDGE. CUT NOZZLE TO DESIRED SIZE AT 45°ANGLE. SCREW NOZZLE ONTO CARTRIDGE. PLACE CARTRIDGE INTO CAULKING GUN.
- EXTRUDE THE SEALANT FILMLY INTO JOINT TO ENSURE COMPLETE CONTACT WITH JOINT FACES.
- TOOL AS REQUIRED WITHIN THE TOOLING TIME TO ACHIEVE SMOOTH SURFACE.

# **CURING TIME:**

MS-604 WILL SKIN FORMING IN APPROXIMATELY 8 MINUTES AND IT WILL CURE TO A DEPTH OF 9 MM IN 7 DAYS. LONGER CURING TIME MAY BE NECESSARY IN DRY AND LOW HUMIDITY AREA.



## **PAINTABILITY**

MS-604 IS PAINTABLE WITH WATER BASED PAINTS, HOWEVER DUE TO LARGE NUMBER OF PAINTS AND VARNISHES AVAILABLE WE STRONGLY SUGGEST A COMPATIBILITY TEST BEFORE APPLICATION. PAINTS BASED ON ALKYD RESINS MAY HAVE EXTENDED DRYING TIME.

NOTE: MS-604 HAS LARGER MOVEMENT CAPABILITY THAN A NORMAL PAINT FILM. CRACKING OF PAINT FILM MAY OCCUR WITH MOVEMENT IN JOINT.





# MS-604 MS HYBRID SEALANT-HM





## **CHEMICAL RESISTANCE:**

GOOD RESISTANCE TO WATER, DILUTED INORGANIC ACIDS AND ALKALIS.

POOR RESISTANCE TO CONCENTRATED ACIDS AND ALKALINE SOLUTIONS, ORGANIC SOLVENTS, AND HALOGENATED HYDROCARBONS.

#### **CLEAN UP**

EXCESS SEALANT CAN BE REMOVED WITH MINERAL SPIRIT AND CLEANING SOLVENT BEFORE CURED. AFTER CURING, MS-604 MAY ONLY BE REMOVED MECHANICALLY.

## **LIMITATIONS:**

MS-604 IS NOT SUITABLE FOR THE FOLLOWING APPLICATIONS:

- PE, PP, PTFE, PLASTICS CONTAINING SOFTENERS, AND BITUMINIOUS SUBSTRATES
- STRUCTURAL GLAZING
- TOTALLY CONFINED SPACES WHERE THERE IS NO ATMOSPHERIC HUMIDITY, WHICH IS NEEDED FOR PROPER CURING
- UNDER WATER APPLICATIONS
- HEAVY TRAFFICABLE SURFACE / JOINTS
- EXPOSURE TO AGGRESSIVE SOLVENTS OR CHEMICALS
- FOOD CONTACT

### **PACKAGING:**

290 ML CARTRIDGES / 24 PER CARTON 600 ML SAUSAGES / 20 PER CARTON

#### **COLOUR:**

WHITE, GREY AND BLACK, OTHER COLOURS UPON REQUEST.

#### **SHELF LIFE:**

9 MONTHS FOR CARTRIDGE PACKAGING & 12 MONTHS FOR SAUSAGE PACKAGING (UNOPENED) IN A COOL AND DRY STORAGE PLACE AT TEMPERATURES BETWEEN +5°C AND +30°C.

### **QUANTITY ESTIMATION**

NUMBER OF 600ML SAUSAGE

 $= \frac{JOINT\ WIDTH\ (MM)\ X\ JOINT\ DEPTH\ (MM)\ X\ JOINT\ LENGTH\ (M)\ X\ 1.15}{}$ 

600

NUMBER OF 290ML CARTRIDGE

= JOINT WIDTH (MM) X JOINT DEPTH (MM) X JOINT LENGTH (M) X 1.15

290

\* WITH 15% WASTAGE ESTIMATION











## **SPECIFICATION:**

| PROPERTIES  | VALUE  | METHOD        |
|---|--|---------------|
| CURING<br>SYSTEM                                  | NEUTRAL  | -             |
| APPEARANCE  | NON-SAGGING<br>PASTE                                       | VISUAL        |
| SMELL   | ODOURLESS  | VISUAL        |
| SPECIFIC<br>GRAVITY                               | 1.66 +/- 0.02<br>(WHITE & GREY)<br>1.64+/- 0.02<br>(BLACK) | ASTM<br>D1475 |
| HARDNESS<br>(SHORE A)                             | 55 APPROX.   | ASTM D2240    |
| ELONGATION<br>AT BREAK                            | 200% APPROX.   | ASTM D412     |
| TENSILE AT<br>BREAK                               | 0.83 MPA   | ASTM D412     |
| SECANT<br>MODULUS @<br>23°C AT 100%<br>ELONGATION | 0.80 MPA   | ASTM D412     |
| APPLICATION TEMP.                                 | 5°C TO 40°C  | -             |
| SERVICE<br>TEMP.                                  | -40°C TO 100°C   | -             |
| LAP SHEAR<br>STRENGTH<br>(AL. TO AL.)             | 0.95 MPA   | ASTM C961     |

#### **CAUTION:**

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET OF THIS PRODUCT BEFORE HANDLING OR USING.

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