



MS-230R NFC TAGS AND SIGNS

Technical Data



Description

MS-230R NFC signs and tags are constructed of printed graphics and NFC tag sealed between layers of chemical resistant plastic. The top layer is an outdoor durable thermoplastic that provides excellent resistance to process chemicals, protection from high impact and functions as a UV filter to prevent fading of printing and graphics. The Near Field Communication (NFC) portion of the tag is in the 13.56 MHz range of RFID. This allows a reading of one single tag with an electronic device per scan. Read distance is 1" (25mm) or less. MS-230R NFC Tags can be used on metal surfaces. The substrate is available in two thicknesses: the standard gauge (rigid, .100" base) provides excellent stiffness for rigid sign requirements. There also is an optional .175" very rigid base offered for larger format signs or upon request. The sign construction has been tested with chemicals common to pulp, paper mills and petrochemical facilities with no adverse effect. Wind tunnel tested to 200 mph.

Physical and Chemical Characteristics

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|-------------------------------------|---|
| Base Material for 230R: | 0.100" (2.54 mm) or 0.175" (4.45 mm) thick rigid polymer |
| Total Thickness: | Single Sided: 0.110" or 0.185" (2.8 mm or 4.7 mm) - (base, label, adhesive, protective outer layer); Double Sided: 0.120" or 0.195" (3.04 mm or 4.96 mm) -(2 each base, label, adhesive, protective outer layer) |
| NFC Tag Parameters: | Chip: NXP I Code SLIX2 IC Protocol: ISO/IEC 15693 ISO Frequency: 13.56 MHz User Memory: 2560 bit |
| Service Temperature: | -40°F through 200°F (-40°C thru 93°C) |
| Water Resistance: | Excellent |
| Expected Outdoor Durability: | Tested to ASTM D 7869. Expected durability, 5 years plus. |
| UV Resistance: | Excellent; UV stable; resists yellowing and hazing |
| Storage Stability: | 5 years minimum |
| Chemical Resistance: | One-hour continuous surface contact @ 73°F (23°C); Ethyl Acetate: No visible effect; Xylene: No visible effect; 40% NaOH: No visible effect; Concentrated HCl: No visible effect; Gasoline: No visible effect; Butyl Cellosolve: No visible effect; Toluene: No visible effect; Isopropyl Alcohol: No visible effect; Cyclohexanone: No visible effect; Acetone: Failure; MEK: Failure; Methylene Chloride: Failure |
| Abrasion Resistance: | Excellent |
| Finish: | Matte finish with beveled edges (parallel edges available) |
| Options: | Available in Engineering Grade and High Intensity Prismatic reflective materials. Thickness may vary. |
| Mounting: | Adhesive backing, grommets, holes with washers or foam tape |





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| Standard Colors: (Non-standard colors available upon request) | <input type="checkbox"/> BLACK (WHITE text) <input type="checkbox"/> GREEN (WHITE text) <input type="checkbox"/> RED (WHITE text) <input type="checkbox"/> BLUE (WHITE text) | <input type="checkbox"/> BROWN (WHITE text) <input type="checkbox"/> WHITE (BLACK text) <input type="checkbox"/> YELLOW (BLACK text) <input type="checkbox"/> ORANGE (BLACK text) |
| Typical Sizes (H x W): | <input type="checkbox"/> 2" x 4" (51 x 102 mm) <input type="checkbox"/> 4" x 8" (102 x 203 mm) <input type="checkbox"/> 10" x 14" (254 x 356 mm) <input type="checkbox"/> 2" x 3" (51 x 76 mm) | <input type="checkbox"/> 3" x 6" (76 x 152 mm) <input type="checkbox"/> 7" x 12" (178 x 305 mm) <input type="checkbox"/> 12" x 20" (305 x 508 mm) <input type="checkbox"/> Other (specify: H x W) |
| Text Height: | Sized to fit within tag boundary or comply with specified height | |

Information on physical and chemical characteristics is based on tests we believe to be reliable. The values are intended only as a source of information and are given without guarantee and do not constitute a warranty. Purchasers should independently determine, prior to use, the suitability of this material for their specific application.

Revised on 9/15/2020

