## Technical Requirements for

# STAPLE WIRE, HEAVY DUTY (BINDER TYPE), 23/13

## PRODUCT SPECIFICATIONS

- One Thousand (1,000) wires per box
- Made of Metal Wire coated with any anti-corrosion material
- Thickness (±0.05): 0.60mm
- Width (+0.15/-0.20): 13mm
- Leg Length (±0.30): 13mm
- Width (E) (± 0.05): 0.75mm
- Number of staples per strip (min.): One Hundred (100)
- Shall pass the Penetration Test
- The staples shall be preformed and cemented together in strip form one behind the other.
- The staples shall have parallel legs at right angles to the crown. They shall easily exit without clogging and jamming the stapler.
- Both ends of the staples shall have either blunt or chisel point ends (see Figure 1)
- Staples shall be free from burrs and sharp or rough edges and other defects which might affect the
  appearance or serviceability of the leg.

## **EVIDENCE and VERIFICATION**

## In-House Test:

- Shall conform with the required performance tests
  - The staples shall be removed without fracture with a staple remover.
  - For penetration test performance:
    - Draw one (1) strip from each box which represents each box
    - Staple fifty (50) sheets of 70gsm of copy paper 10 times for each strip.
       Staples shall fully penetrate and clinch without buckling or fracturing of the crown or leg and shall not show any malformation after stapling.
    - Allowable defect per box: One (1) strip out of five (5) strips
    - Allowable defects per strip: One (1) defect (maximum) per trial.
    - Sample Size: Fifty (50) staple wires (10 staple wires for each box)
    - The latest awarded heavy duty stapler shall be used for testing of sample/s.
  - For Corrosion Resistance Test:
    - Immerse a strip of staples for 5 hours in 5% sodium chloride solution and after taking it out, observe the existence of rust developed.



- Procedure for making 5% Sodium Chloride Solution:
  - Weigh five (5) grams of sodium chloride. Pour it into a graduated cylinder or volumetric flask containing about 80 ml of water. Once the sodium chloride has dissolved completely (swirl the container gently if necessary), add water to bring the volume up to the final 100 ml.
- No rust shall develop on the staples when tested in accordance with the Corrosion Resistance Test.

Caution: Do not simply measure 100ml of water and add 10g of sodium chloride. This will introduce error because adding solid will change the final volume of the solution and throw off the final percentage.

• Five (5) boxes with marking/labeling shall be provided by the bidder during the submission of additional post-qualification documents for verification of the product specifications.

## PACKAGING

- In a box (1,000 wires per box)
   Ten (10) boxes per pack or Standard packaging of the Manufacturer.
- Additional Requirement on Packaging, refer to the attached Annex "A"

## MARKING/LABELING

 Shall conform with the minimum Marking and Labeling Requirements under Article 77 of Republic Act 7394 (Consumer Act of the Philippines) whichever is/are applicable among those requirements to this item.

## REFERENCES

PNS 1162:2020

#### **ILLUSTRATION**

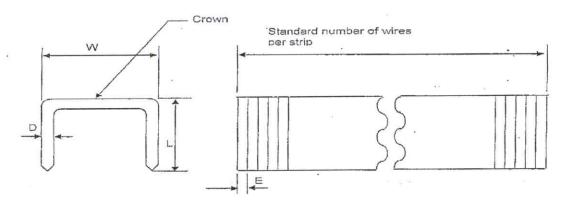


Figure 1 - Staples

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