

## **Guidelines for Usage, Storage & Disposal of Powerlite® & Fine met C Cores (AMCC) / Blocks / Tiles**

- A) Powerlite® & Fine met C Cores / Blocks / Tiles are manufactured from Iron based Alloy and is prone to rusting if not stored / handled properly.
- B) Powerlite® & Fine met C Cores / Blocks / Tiles are used in Soft Magnetic Products, which are varnished or epoxy impregnated or encapsulated or potted before final application / assembly. This process of varnishing / potting the Powerlite® & Fine met C Cores / Blocks / Tiles provides a protective layer / cover which reduces its probability towards rusting.
- C) In Case Powerlite® & Fine met C Cores / Blocks / Tiles are not varnished, encapsulated or potted, extra care need to be taken during storage to prevent rusting.
- D) The rusting can also happen if Powerlite® & Fine met C Cores / Blocks / Tiles are kept in a humid condition/ handled with wet hands / moisture in hands.

### **PRECAUTIONS -**

1. Store / pack Powerlite® & Fine met C Cores / Blocks / Tiles in VCI (Volatile Corrosion Inhibitor) paper in sealed polybag to prevent rusting.



2. Always wear gloves while packaging or handling cores to avoid the chances of moisture penetration due to bare hands.



3. However rust marks (not very heavy) can be cleaned with following process –
  - a. Clean the Powerlite® & Fine met C Cores / Blocks / Tiles thoroughly using Non Metallic Scrubber (Scotch brite or equivalent) and suitable Rust Preventive Solution (such as MET-L-Gard RP 631, Rustlik, or equivalent).
  - b. Rub the Scotch brite carefully avoiding flaring. However if any loose layer is observed, it can be pasted by applying little Three Bond Cyanoacrylate adhesive or equivalent.
  - c. A time lag of around 10-15 minutes needs to be given (for drying) between Rust Preventive Solution application and wrapping the cores in VCI Paper.

- d. VCI paper has a life of one year. VCI paper needs to be changed after **one year** from the date of packaging. Date of packaging is mentioned on the bar code generated sticker, pasted on the packaging box.



- e. Powerlite® & Fine met C Cores / Blocks / Tiles in inventory / stores needs to be checked for rust after every six months.

4. Details of scotch brite, VCI, Rustlik, Cyanoacrylate Adhesive -

- A) Scotch brite: These are scrub pads used to clean core surface –

[http://solutions.3m.com.sg/wps/portal/3M/en\\_SG/WW2/Country](http://solutions.3m.com.sg/wps/portal/3M/en_SG/WW2/Country)

- B) VCI: It is Zavenir Daubert VCI paper –

<http://www.zavenir.com/daubert-vci-films.php>

- C) Rustlik 631: Rustlik 631 is moisture displacing rust preventive and penetrant -

<http://www.itwfpg.com/MSDS/rustlik/631.pdf>

- D) Cyanoacrylate Adhesive-Three Bond

<http://www.threebond.co.uk/PRODUCTS/ThreeBondAdhesivesPottingAgents/InstantAdhesives>

**CORE ASSEMBLY (Applicable for C-Core) -**

- ✓ For checking the matching of the two halves of Powerlite® & Fine met C Cores, place the core on the surface, as shown below.
- ✓ Cores should be placed in such a way that the two white lines in the two halves should be in a single line.



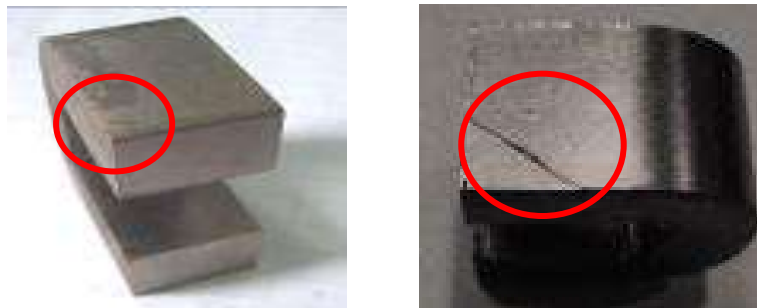
**CORE HANDLING -**

- Powerlite® & Fine met C Core / Block / Tiles manufacturing involves Winding / Cutting Amorphous Metal ribbon layers as per dimension requirement. This Amorphous Ribbon has “BRITTLINESS” as one of the inherent property.

- Powerlite® & Fine met C Cores / Blocks / Tiles made with Amorphous Ribbon is prone to delamination / breakage, if not handled properly. Special care is required during un-packaging, installation and storage.



- In spite of best manufacturing practices and all handling precautions, Powerlite® & Fine met C Cores / Blocks / Tiles may still have some visual observations.
- Some of the common “ACCEPTABLE VISUAL CHARACTERISTICS” are:
  - Ribbon layer (on outer surface or inner surface edges) may sometime appear little loose. This phenomenon is called “Flaring” and does not affect product performance or characteristics.



**Ribbon Loose / Flaring**

- These Powerlite® & Fine met C Cores / Blocks / Tiles, as a part of manufacturing process, are dipped in epoxy / resin system to provide mechanical strength. Therefore a slight / minor layer / lump of this epoxy / resin system may or may not remain on outer surface (except mating surface / cut surface / grind surface).
- Surface finish on ribbon side may not appear very smooth (like machined component) due slight unevenness of ribbon layers / minor gaps / dullness due to slight ribbon shifting or epoxy lumps / layer/ marks. This finish does not affect the product performance characteristics.



**Gap in ribbon layer**



**Gap in ribbon layer**



**Uneven ribbon surface**

**MEASUREMENT METHOD (Applicable for C-Core):**

- Since Powerlite & Fine met C Cores / Blocks / Tils are not a machined component therefore dimensions on Powerlite & Fine met C Cores can not be linear.
- Dimensional inspection of Powerlite & Finemet C Cores should be carried out as below -



**Dimension 'A'**



**Dimension 'B'**



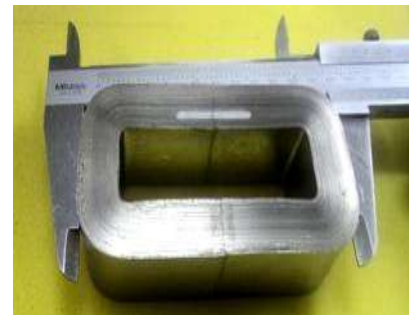
**Dimension 'C'**



**Dimension 'D'**



**Dimension 'E'**



**Dimension 'F'**

**DISPOSAL CONSIDERATION:**

- Observe all Federal, State, and Local Environmental regulations. Dispose in accordance with wastes disposal and public cleansing law.
- The information offered here is for the product as shipped. Use and / or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the proper disposal method.

**In case of any issue please contact:-**

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