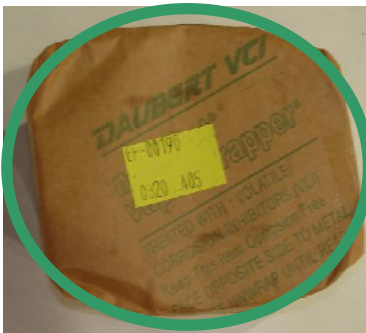


Guidelines for the usage and storage of Powerlite® & Finemet C Cores

Powerlite® & Finemet C Cores are made up of Iron based alloy, which is prone to rusting if not stored/ handled properly. Powerlite® & Finemet C Cores are used in soft magnetic products, which are varnished or epoxy impregnated or encapsulated or potted before final application/assembly. During this process of varnishing/potting the Powerlite® & Finemet C Cores automatically gets immune to rusting due to protective cover formed over the core by this process. In Case Powerlite® & Finemet C Cores are not varnished, encapsulated or potted, extra care need to be taken during storage to prevent rusting.

The rusting can happen if Powerlite® & Finemet C Cores are kept in a humid condition/ handled with wet hands/ moisture in hands.

1. Store / pack Powerlite® & Finemet C Cores 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 through bare hands.



However slight rusting can be cleaned with small cleaning operation as mentioned below:

1. Clean the Powerlite® & Finemet C Cores if there is minor rust, thoroughly using Non Metallic Scrubber (Scotch brite or equivalent) and rust preventive substance (such as MET-L-Gard RP 631, ITW make or equivalent). Rub the scotch brite on the cut surface carefully avoiding flaring. However if any loose layer is observed, it can be pasted by applying little Three Bond Cyanoacrylate adhesive or equivalent.



2. A time lag of 10 minutes needs to be given between rustlick (Rust preventive) application and wrapping the cores in VCI Paper.
3. Make sure to apply rust inhibitor on all the Powerlite® & Finemet C Cores before packaging/ storing.
4. 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.
5. Powerlite® & Finemet C Cores in inventory /stores needs to be checked for rust after every **six months**.

Please find below the details of scotch brite, VCI, Rustlick , Cyanoacrylate Adhesive and conditions for storage:

A) Scotch brite: These are scrub pads used to clean core surface. We use scrub pads of 3M Make Size 6 inch x 9 inch. Please find the website link below

http://solutions.3m.com.sg/wps/portal/3M/en_SG/WW2/Country

B) VCI: It is Daubert VCI paper type Vapour wrapper VW35D, USA and the link is shown below.

<http://www.daubertvci.com/vw35d.asp>

C) Rustlick 631: Rustlick 631 is moisture displacing rust preventive and penetrant and the link is shown below.

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

D) Cyanoacrylate Adhesive-Three Bond

<http://www.threebond.co.uk/PRODUCTS/ThreeBondAdhesivesPottingAgents/InstantAdhesives/tabid/221/Default.aspx>

Core Assembly

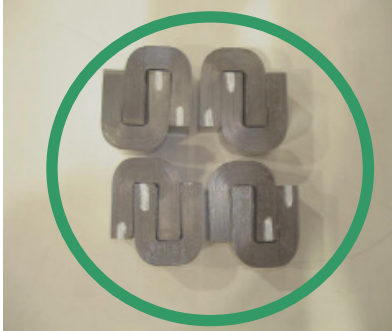
For checking the matching of the two halves of Powerlite® & Finemet C Cores, place the core on the surface, as shown in Figure.



Core should be placed in such a way that the two white lines in the two halves should be in a single line (ref. figure).

Core Handling

Powerlite® & Finemet C Core's manufacturing process involve winding amorphous metal ribbon layers as per dimensional requirement. This amorphous ribbon has "BRITTLINESS" as one of the inherent material property. Powerlite® & Finemet C Cores made from this amorphous ribbon is prone to breakage, if not handled properly. Special care is required during un-packaging, installation and storage.



NOT GOOD



GOOD

In spite of best manufacturing practices and all handling precautions, some of the common "ACCEPTABLE VISUAL CHARACTERISTICS" observed in cores are:

1. 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



Ribbon Loose/Flaring

2. Surface finish on ribbon side may not appear very smooth (like machined component) as slight unevenness/minor gaps may appear due to slight ribbon shifting or epoxy lumps. This finish does not affect the product performance characteristics.



1) Minor gap on top & bottom Surface



2) Minor gap on top & bottom Surface



3) Uneven surface

MEASUREMENT METHOD:

Since Powerlite & Finemet C Cores are not a machined component therefore dimensions on Powerlite & Finemet C Cores can not be linear. Dimensional inspection of Powerlite & Finemet C Cores should be carried out as per photographs mentioned below:



Dimension ' A '



Dimension ' B '



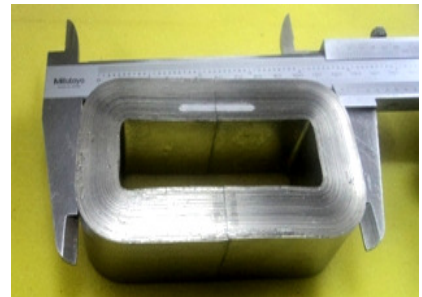
Dimension ' C '



Dimension ' D '



Dimension ' E '



Dimension ' F '

In case of any issue please contact:-

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