

Summary of meeting held on 2018.02.05 11:00, in b.180. Author: D. Pulikowski.

Subject: Harmonization of Curing and Reaction Heat Treatment procedures of 11 T.

Attendees: F. Savary, F. Lackner, J. C. Perez, A. Musso, D. Pulikowski.

Point of the meeting was to clarify the differences of the curing and RHT procedures followed in MDT and LMF sections. Below is presented a summary of the comments and agreed actions.

1. Curing:

- a. Details of the CTD-1202X and CTD-1202 ceramic binder will be clarified by Andrea Musso.
- b. Amount of ceramic binder put in the coil head region should be clarified.
- c. Curing cycle in 180 is longer in order to ensure the correct pre-curing and compensate for the larger thermal inertia than short coil.
- d. Load is taken by tooling, higher pressure is better for press in 927 (control system). Differences in a cavity size needs to be double check.
- e. Closing and opening sequence is considered insignificant and stays not modified.
- f. Measurement of total gap between wedges after curing will be added in 927 procedure.
- g. Measurement of distance between spacer holes before and after curing will be added in 927 procedure.
- h. Mask while applying ceramic binder will be considered in 927.

2. Reaction Heat Treatment:

- a. Mica thickness and assembly shim differences are a result of a design differences and will be maintained unchanged.
- b. Pre-tightening and final closing of a reaction mold is considered giving negligible effect on coil geometry, therefore will be maintained unchanged.
- c. Opening of the reaction mould will be performed from the COC (opposite connection side) consecutively towards CC (connection side). Additionally, the dial gauges will be positioned on the coil extremity in order to measure the longitudinal expansion of the inner and outer layer of the coil during the opening. This includes opening of the #120 11T short model.
- d. The amount of Mica layers insulating leads should be clarify in the procedure.
- e. Different assembly order of side pushers ('regle') is due to differences in the mould design.
- f. During the leads preparation, i.e. cutting of the cable core, the mechanical support will be considered in 927 procedure, as shown in p.6.6 in 180 procedure.
- g. The shimming plan summary should be given in the procedure.
- h. The CDD numbers of assemblies and drawings should be included in form of a list in the procedure.
- i. Measurement of total gap between wedges after curing will be added in 927 procedure.
- j. Measurement of distance between spacer holes before and after curing will be added in 927 procedure.

Legend:

Immediate action for #120 11T short model coil include point 2.c.

Measurements added to the procedure for all the following coils are: 1.f, 1.g, 2.i, 2.j.

Points requiring further verification are: 1.a, 1.b, 1.h, 2.d, 2.f, 2.g, 2.h.

Clarified points considered giving negligible impact on the process are: 1.c, 1.d, 1.e, 2.a, 2.b, 2.e.