

## PAB Materials Test System

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| <b>Date of Receipt</b>                  | Nov.09   |
| <b>Sample Name/Description</b>          | 962 Feedthrough Board V2 with 4 connectors   |
| <b>Sample</b>                           |  |
| <b>Composition:</b>                     | board :FR4 , connectors: glass filled nylon  |
| <b>Picture Location:</b>                | data base  |
| <b>Density:</b>                         | x  |
| <b>Weight:</b>                          | 63.7g (board with 4 connectors)  |
| <b>Dimensions/Area:</b>                 | board: 8cm x 9.3cm, connector: 7.6cm x 1cm x 0.7cm   |
| <b>Source:</b>                          | Walter Jaskierny   |
| <b>Preparation:</b>                     | cleaned with alcohol   |
| <b>Submerging in LAr or LH2</b>         | no   |
| <b>Time in the airlock(hrs)</b>         | app. 24 hours  |
| <b>Purge:</b>                           |  |
| <b>Vacuum:</b>                          | 10/12/2009, app. 23.5h   |
| <b>Vapor Test 1</b>                     |  |
| <b>Start Time/Date, End Time/Date :</b> | 10/13/09 2:30pm, 10/14/09 1:15pm   |
| <b>PrM run # :</b>                      | 6194   |
| <b>Condenser state:</b>                 | on   |
| <b>Filter state:</b>                    | on, heater time 1min, valve open 1min  |
| <b>O2 reading:</b>                      | x  |
| <b>H2O reading:</b>                     | 4ppb to 16ppb  |
| <b>Temperature:</b>                     | x  |
| <b>Lifetime:</b>                        | 8ms to 3.2ms   |
| <b>Room Temperature Test 1</b>          | Airlock purged with Luke vapor for 10min before gate valve open  |
| <b>Start Time/Date, End Time/Date :</b> | 10/14/09 3:15pm, 10/15/09 9:25pm   |
| <b>PrM run # :</b>                      | 6209   |
| <b>Condenser state:</b>                 | on   |
| <b>Filter state:</b>                    | on   |
| <b>O2 reading:</b>                      | x  |
| <b>H2O reading:</b>                     | 16ppb to 85ppb   |
| <b>Temperature:</b>                     | room   |
| <b>Lifetime:</b>                        | 4ms to 2ms   |
| <b>Room Temperature Test 2</b>          | Sample baked for 24hours at 80-100F,<br>airlock evacuated for 0.5hour to 10E-6 Torr                                  |
| <b>Start Time/Date, End Time/Date :</b> | 10/16/09 10:30am , 10/21/09  |
| <b>PrM run # :</b>                      | 6228   |
| <b>Condenser state:</b>                 | on   |
| <b>Filter state/settings:</b>           | off 10/16/09 to 10/19/09,<br>on 10/19/09 to 10/22/09   |
| <b>H2O reading:</b>                     | 5ppb to 45ppb then stabilized at 25ppb   |
| <b>Temperature:</b>                     | room   |
| <b>Lifetime:</b>                        | 8.5 ms to 5.3ms in 5h. to 1ms in 70hours   |
| <b>Zero Test - room temperature</b>     | airlock evacuated to 9E-6 Torr   |
| <b>Start Time/Date, End Time/Date :</b> | 10/22/2009, 10/26/09   |
| <b>PrM run # :</b>                      | 6290   |
| <b>Condenser state:</b>                 | on   |
| <b>Filter state/settings:</b>           | off  |
| <b>H2O reading:</b>                     | 5ppb to 18ppb  |
| <b>Lifetime:</b>                        | 7 ms to 1.3ms in 80hours   |
| <b>Results &amp; Comments</b>           | lifetime dropped to 12-30% due to big amount of water released.<br>connectors and board need to be tested separately |