



**Product Testing Preparation
ING Panel
September 9, 2017**

Anatomy of a litho plate

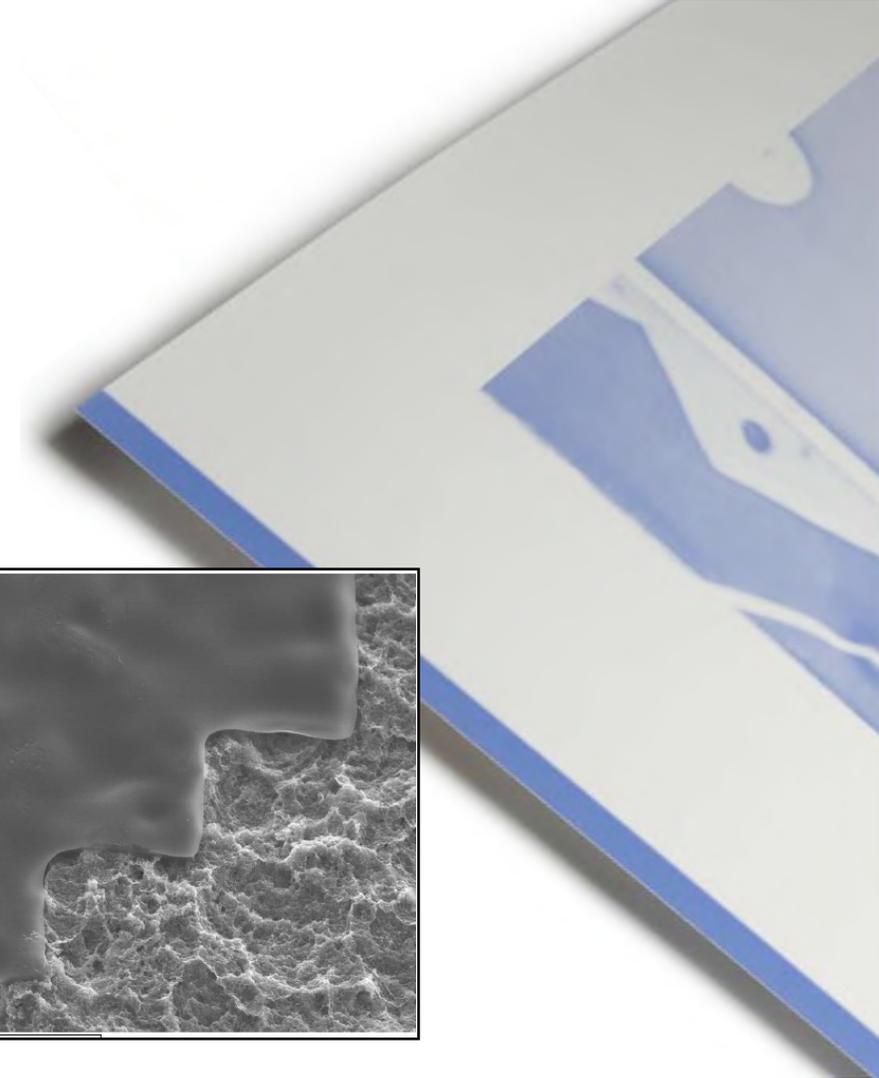
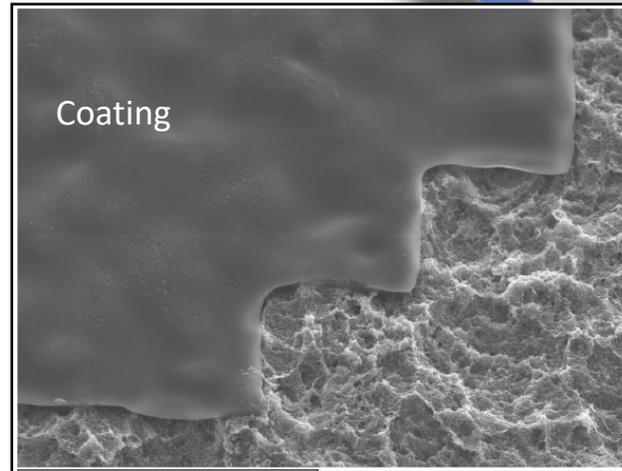
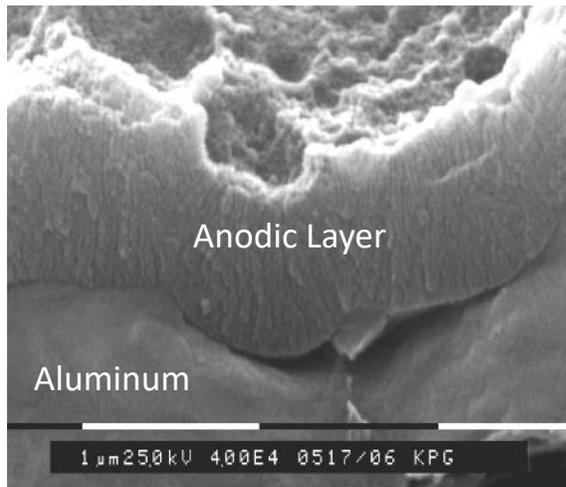
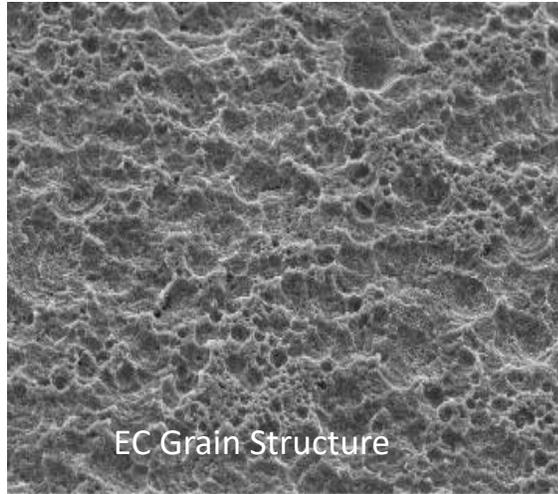


Plate Selection Criteria

Imaging performance



- Speed
- Quality & Consistency
- Resolution
- Stochastic needs
- Pos or neg imaging
- Linear vs non linear plate—curve profile adjustments
- Imaging devices



Handling and processing

- Safelight
- Environmental chemical disposal
- Pos or neg-type developer system
- Developer life and replen level
- Processing speed
- Processor maintenance
- Pre-Heat or Post Bake demand
- Staging of plates from pre press to press

Press performance, presswork



- Resolution
- Press dot gain or loss
- Ink / water balance
- Chemical compatibility
- Rollup and holdovers
- Durability: scratch resistance and run-length



Miscellaneous characteristics

- Image contrast
- Shelf life/Storage
- Floor Space & Energy Costs
- Autoloader transport capability
- Size , gauge, Configuration availability
- ROI and cost of ownership
- Interleaving requirements
- OPB and Bar code readers



Preparation is Key!

- In the print process, there are many opportunities for problems to arise and these need to be identified before they occur
- Map out the application demand including equipment and plate workflow then, wherever possible, carry out a full audit
 - Including all the pre press and press operations
 - Platesetter qualified
 - Resolution demand
 - Run length requirements including UV demand if required
 - De leafing requirements
 - OPB or bar code compatibility
 - Intent is to preview improvement opportunities and potential barriers to technology adoption not necessarily to question or be critical about current working practices



Checks within the plate's workflow



Storage & Handling

- Warehouse conditions
- Transporting to the plate room



CtP & Plate Room

- Handling (into cassette or AL)
- Lighting, temperature & humidity
 - Insure no UDRC is required.The room conditions are in line with best practices for handling Violet or Thermal technology platforms

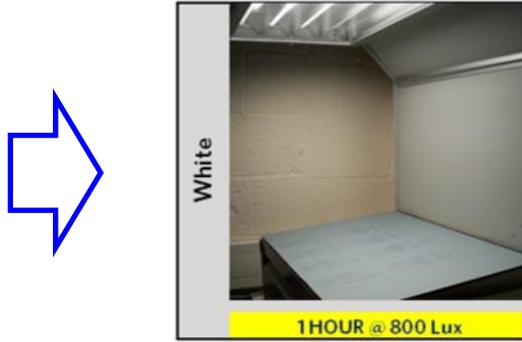


Plate Line Equipment

- Conveyors, punches, benders, stackers particularly with processless technologies
- Lighting & handling



... and into the Pressroom



Transport to & storage in the press room

- Handling & Lighting
- Protection from light, if necessary
 - Avoid direct sun light

On the press

- Handling onto the press
- Start-up procedures
- Set up & calibration
- Cleaning regimes and chemistries used



Again, Preparation is Key!

- Ensure that all the customer's CtP devices are qualified
 - Some models may have different heads, so check
 - Head health /fiber diode uniformity and energy effectiveness
 - Clean optics
 - Run tests for power, DS, BS, BC and focus
 - If they are not qualified for a specific technology, who will set up the plate and provide ongoing customer support?
- Safe lighting conditions are not often problematic but check
 - In the pressroom, as well as pre-press
 - Where will the plates be kept prior to mounting on press?
- Similarly, storage conditions are rarely a concern but check throughout the plate's workflow, including warehousing
 - Check against the SOP temp. & humidity specifications
- Map media slot to hot folders
 - Set curve profile adjustments if required



Anticipate Potential Problems & Resolve

Wet and processless technologies can be susceptible to scratching

... but minor workflow changes will bring the benefits

- Therefore, identify potential sources and eliminate
 - Effective finishing solution for wet process plates
 - Transferring from the carton or bulk box to the cassette
 - Rollers, punches and other transport systems in the CtP
 - Plate line equipment such as benders, bar code readers and stackers
 - If more than one press, there may be some manual sorting, which is a prime source of scratches
- Remember that scratches created on the back of the plate can scratch the front when plates are stacked and carried



In the Pressroom

- Customers often have multiple presses, often with 5, 6 or up to 12 units, so previewing detail of each press is beneficial
- Do not attempt to introduce technology platform to all the presses at once
 - Conduct chemical resistance testing of press room chemistries and solutions
 - Identify the preferred press, and trial over a period of time and customer operational work schedules.
 - Then as possible, introduce other presses one at a time, taking time to convert
 - The first one will become the benchmark for the rest of the presses so pick the most suitable that will provide representation of the press requirements and demand
 - Only move onto the next press when the first is running well and the crew are supportive of plate performance



Question





THANK YOU!