



AGENDA

ORGANIZATIONAL MEETING FOR PROPOSED NEW ASTM ACTIVITY ON Additive Manufacturing Technologies

ASTM International Headquarters
West Conshohocken, PA
January 13 & 14, 2009

1. CALL TO ORDER - P. Picariello, ASTM International
2. WELCOME AND SELF-INTRODUCTION OF ATTENDEES
3. OBJECTIVES OF MEETING
 - a. Bring industry experts together
 - b. Identify specific standards needs
 - c. Develop & approve title, scope, & structure
 - d. Determine if ASTM should organize activity
4. OVERVIEW OF ASTM & THE STANDARDS DEVELOPMENT PROCESS
5. BACKGROUND ON REQUEST FOR ACTIVITY
 - a. Brent Stucker, Utah State University, VTT Technical Research Center
 - b. ASTM International - P. Picariello, ASTM International
6. REVIEW & DISCUSSION: AREAS TO BE CONSIDERED FOR CONSENSUS STANDARDS (Attachment A)
7. DISCUSS & APPROVE TITLE OF ACTIVITY, SCOPE, & COMMITTEE STRUCTURE (Attachment B)
8. SHOULD THIS ACTIVITY ORGANIZE WITHIN ASTM?
9. APPROVAL OF VOLUNTEER LEADERS
 - a. Nominating Committee: Officer Slate Development
 - b. Subcommittee Chairmen
 - c. Ad Hoc Committee: Bylaws Development:
10. ADDITIONAL STEPS: MOVING FORWARD
 - a. Liaison Activity
 - b. Meeting Profile
 - c. Promotion
11. BREAKOUT SESSIONS: SUBCOMMITTEE SPECIFIC
12. REPORT FROM BREAKOUT SESSIONS
13. NEXT MEETING
14. ADJOURNMENT

ATTACHMENT A

Top 4 high-priority items identified at Planning Meeting:

- Testing Standards relevant to Add. Mfg.
- Terminology guidelines
- Material-related standards (handling, processing, recycling, quality, etc.)
- Process-specific standards (SLS, SLA, etc.)

Unordered list from brainstorming session at Planning Meeting:

- ❖ Liaison with ISO activity to ensure lack of duplication
- ❖ Materials spec to document what is a quality standard (presumption of conformity)
- ❖ Off-the-shelf material use?
- ❖ Testing standards for material properties
- ❖ Specifications for specific processes
- ❖ Terminology
- ❖ How do you certify that a machine is 'back' after maintenance?
- ❖ Calibration standards
- ❖ Training & certification of operators
- ❖ Means of testing/tracking performance of parts (statistical process control)
- ❖ Finishing of parts
- ❖ Practice for qualifying post-curing apparatus
- ❖ Practice for post-processing of parts
- ❖ Practice for recording & reporting data
- ❖ Which sample type gives lowest possible error (appendix to existing specs)
- ❖ Material classification(s)
- ❖ Resistance from parts manufacturers (due to IP issues) must be considered
- ❖ ID Parameters for process validation
- ❖ Standards based on input values or output values? Subcommittee by subcommittee decision
- ❖ Testing for electrical properties
- ❖ Testing for structure (opposed to properties) - i.e. porosity
- ❖ Consideration: criticality of application
- ❖ Multi-material structures; gradient-material structures
- ❖ Non-destructive testing
- ❖ Re-certification of material within a machine (recyclability)
- ❖ Practice for re-qualification of material
- ❖ Perpetual Question: What don't we know? Standards will need to accommodate change
- ❖ Source certification bill (scalable to accommodate different size machines)
- ❖ Digital input
- ❖ Standardize the way process is understood
- ❖ Development of design guidelines
- ❖ Packaging, storage, & shipping of parts
- ❖ Process Monitoring
- ❖ Testing of lattice materials

ATTACHMENT B

NOTE: language below is in draft form only - it is to be discussed and finalized (via formal vote) at the Organizational Meeting in January.

Draft Title: Additive Manufacturing Technologies

Draft Scope: The scope of the Committee includes the promotion of knowledge, implementation, stimulation of research, and the development of standard specifications, test methods, practices, guides, terminology, and classifications relating to additive manufacturing technologies, processes, materials, and applications (including repair). The work of this Committee will be coordinated with other ASTM technical committees and other national and international organizations having mutual or related interests.