



Approved Products List (APL) and Build American Buy America (BABA)
Sample Life Cycle

December 22, 2022

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#### Introduction

Products from the Approved Products List (APL) were tracked in the State Construction Office (SCO) Pay Item Tracking System (PTS). PTS has been decommissioned and all APL products permanently installed are now tracked in MAC beginning on January 1, 2023 on both new and active projects.

Products with a Build America Buy America (BABA) designation will be entered in MAC as they are added to the APL. There is no difference in the entry and tracking for APL products and BABA products.

## Things to know:

- MAC does not interface live with the Product Application Tracking and History (PATH)
  - MAC gets a daily snapshot of limited APL data from PATH
- It is *crucial* MAC data entry is done in a timely manner
  - Products may be acceptable at the time of placement, but if entered at a later date and the product is no longer acceptable, MAC may indicate the product is not acceptable
- Each product may have one or more situations that impact acceptability for a specific project
  - A review of the product limitations, exceptions, waivers, etc. must be performed in PATH before entering the APL tracking sample in MAC
    - Some products have comments that may limit the usage or placement of the product
      - Comment: Approved for 12,18, 24, & 36 inch depths
    - Some products have limitations such as workbook let date
      - In the example below, the product would not be acceptable for a project on a contract let date on or after July 1, 2018 even if it has an APL number that can be selected in MAC
    - Some have both
- This is not a one sample per product process
  - o On a Standard JGS, to ensure the correct APL product is being installed and paid for and in what quantities, enter a sample for each unique combination of
    - Project
    - Pay Item
    - APL number
    - Placement
      - Sometimes the same product can be placed more than once and not at the same time
  - o On a Nonstandard JGS, enter a sample of each unique combination of
    - Project
    - APL number
    - Placement

## Chapter 1 - Reviewing the APL

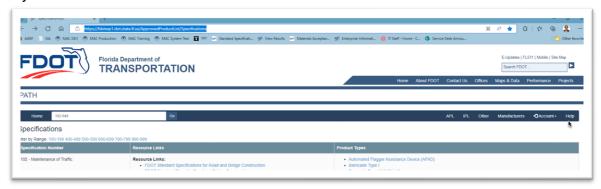
Before a product is placed and entered into MAC, project personnel must check in PATH to confirm the acceptability of the product. This review includes confirming any limitations, comments, or statuses. As described in the example above, *just because there is an APL number available in MAC does not mean the product is acceptable for a specific project.* 

The address is as follows:

https://fdotwp1.dot.state.fl.us/ApprovedProductList/Specifications

If you haven't already, you may want to save it as a favorite or bookmark it.

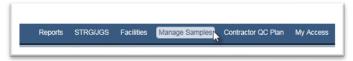
Search for the product and review any comments, statuses, limitations, etc. If there are any questions about a product's acceptability for a specific project, contact the Product Evaluation Office. Contact information can be found by selecting the Help link on the upper right corner of any screen in PATH.



MAC Support cannot provide input on product acceptability. We can assist with general MAC questions such as login or result entry. For product specific questions, contact the Product Evaluation Office.

## **Chapter 2 – Sample Login**

You must be in your company roles to process samples in MAC. These instructions assume the user is already logged into MAC, is familiar with sample functions, and has the correct role(s) to create samples, enter test results, and submit samples to FDOT.



1. Select the Manage Samples option from the MAC menu. You will be navigated to the Sample screen.



- 2. Select the Create Sample Login option
- A Create Sample Login screen will appear.



- 3. **Sample Category** this field defaults to Project. Leave it as is for APL tracking samples.
- 4. **Contract/Project** begin typing the contract number or Financial Project Id in the field. Either can be supplied. Select an entry from the returned list.

**NOTE**: If the same product is used on more than one project on a contract, log a sample in for each project so the quantity installed can be associated with each project. Do not use the Additional Projects dropdown.

5. **Material/Specification** – select the Material before selecting a pay item. From the dropdown, select the appropriate Material for the product the sample represents. If you are not sure what Material to use, contact the appropriate SMO technical unit or a system administrator.

**NOTE**: In most cases, the MAC Material will be the same as the APL Spec Category. In some cases, the MAC Material is the Division III Specification, not the APL Spec Category. See <a href="#">Chapter 6 - APL Product to MAC Spec Crosswalk</a>.

**NOTE**: If the material is not available:

- a. Standard JGS contact the MAC Support Team. We may need to assign the pay item to MAC Material(s).
- b. Nonstandard JGS review the Materials tab on the Nonstandard JGS to ensure that is has been added. If the Material is on the Materials tab and it does not appear on the sample login screen, contact the MAC Support Team.

## 6. Pay Items -

a. **Standard JGS** – select the pay item the product represents. If the same product is used on more than one pay item, log a sample in for each pay item so the quantity installed can be associated with each pay item. Do not use multi-select pay items.

**NOTE**: If the pay item does not appear, contact the MAC Support Team. It may need to have the MAC Material assigned to the pay item in MAC. If the missing pay item is the only one that would have the material assigned to it, the material may not appear in the Material/Specification field.

**NOTE**: When a project specific MAC Spec is assigned on a standard JGS, the pay item dropdown will disappear when you select the Material and you will receive the message "No Pay Items found related to all select projects/materials".



b. **Nonstandard JGS** – you cannot select a pay item on a nonstandard JGS project, even though the instructions say to enter per product per pay item. After selecting the Material, you will not have an option to select a pay item if the contract is Lump Sum or Design Build or a non-SiteManager contract, such as Local Agency Program or Grant.



7. Select the Continue to Sample Information Screen option to continue.

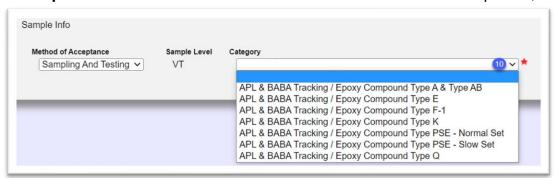
New fields will appear on the login screen.



8. **Method of Acceptance** – the method of acceptance for APL tracking samples is Sampling and Testing. Sometimes this field will be a default. Some Materials may have a dropdown, especially those that are APL and require a certification document and/or a physical sample of the material to be logged into MAC. Always select Sampling and Testing for APL tracking samples.



9. Sample Level – this defaults to VT in most cases. If there is a dropdown, select VT.



10. **Category** – some MAC Specs will have categories and types for physical samples needed for acceptance. For this process, select the category / type associated with the APL tracking. This is a key field. If the incorrect category / type is selected, the sample must be deleted and reentered.

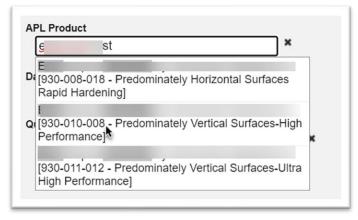
**NOTE**: If an incorrect category / type is selected, do **NOT** return the sample for Sample Information corrections to update the category / type even though MAC will allow it. Have a new sample with the correct category / type entered and processed, then have the appropriate DAC delete the incorrect sample.

Different MAC Specs will have different sample login fields. The following instructions will cover all fields that may appear on an APL tracking login screen. However, they may not all appear on a specific login screen.



11. **APL Number** – begin typing the APL number or description and select the entry from the returned list.

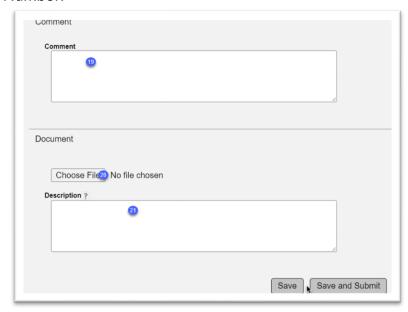
**NOTE**: Make sure the appropriate number is selected for the pay item that was selected in field 6. Some products have more than one APL number because they are approved for multiple applications. Project personnel must ensure that the correct APL product is being used for the specific application.



For example, this concrete repair material is designated as Predominately Horizontal Surfaces Rapid Hardening, Predominately Vertical Surfaces-High Performance and Predominately Vertical Surfaces-Ultra High Performance. It was used in a predominantly vertical surface-high performance application so the correct APL Number to select is the 2<sup>nd</sup> one.

- 12. **Date Sample Taken** this field is required on all samples in MAC. There is no sample. Enter the date the product was placed or select the date from the calendar.
- 13. **Quantity Installed** enter the amount of the product that was placed on the project. For example, if 500 pounds of Fiber Reinforced Polymer rebar was placed, enter 500.

- 14. **Unit of Measure** enter the measure for the quantity placed; for example, 500 pounds of Fiber Reinforced Polymer rebar was placed, enter pound and select Pound(s) from the returned list.
- 15. **Batch #** enter the Manufacturer's batch number.
- 16. **Heat/Coil No.** for steel related products, enter the fabricator's heat or coil number.
- 17. **Wall #** if the product is part of a wall or placed in a wall, enter the Wall Number from the project plans.
- 18. **Bridge #** if the product is part of a bridge or placed on a bridge, enter the FDOT Bridge Number.



**NOTE**: Some samples may have Station Sampled under the Location information. This is usually for a product that is incorporated onto the project and cannot be readily detected, for example, concrete repair materials. When the Station Sample field appears, enter the station location where the product is placed so if it needs to be reviewed at a future date, the product can be more easily located.

- 19. **Comment** enter any comments about the sample you wish to make. If you do not make a comment now, you will be able to add comments later.
- 20. **Document** to attach a document, click on the Choose File option.

The Open dialog box will appear. Navigate to the location where the document is stored. Click on the document to select it. Click on the Open option to upload the document to the sample.

21. **Description** – enter a description of the document, if desired.

The document will be attached to the sample. If you don't attach a document at this time, you can add documents to the sample later.

#### 22. Save or Save & Submit -

- a. Select Save if you are not ready to respond to the test question and want to save the data you have entered so far. For example, you may wish to review the product in the PATH to ensure you have confirmed all the statuses, comments and limitations. If you select Save, the sample will be designated as Logged and will need to be Submitted for Testing even if the test results have been entered.
- b. Select Save & Submit if you are ready to respond to the test question.

**NOTE**: Like any MAC sample, these APL tracking samples can be returned for corrections. If a sample is returned for sample information corrections for other data besides the APL number, the status of the APL product may not be impacted. If the sample is returned because the APL number needs to be updated, the status of the APL product may be impacted, depending on how long after the product was placed and if it is still acceptable.

## Chapter 3 – Result Entry, Review and Submittal to FDOT

Because the APL Tracking test is designated as a field test, there is no laboratory on the sample record and the sample does not have to be received before the test results can be entered.

## A. Result Entry



- Click on the Associated Test tab to expand it.
- 2. Select the Perform Test option.

**NOTE**: The Mark Test Not Performed option appears but does not apply. This option should not be selected for APL / BABA tracking samples.

A Perform Test dialog box appears.



- 3. **Tester** this field is required on all tests in MAC. This is the person who reviewed the product and determined if it is acceptable for the project. They do not have to have a Technician Identification Number (TIN). If the person who performed the review does not have a TIN, MAC will display a message, No Results Found and it will look like you cannot move forward. Select the Tab key to move to the Date Test Performed field or click in the Date Test Performed field to navigate away from the Tester field. MAC will bypass the message and store the name.
- 4. **Date Test Performed** this field is required on all tests in MAC. Enter the same date that was used in Date Sample Taken (date product placed).
- 5. Does the selected APL product meet Contract Document requirements (verify limitations and comments)? select Yes if the review of the product in PATH confirms it is acceptable for the project. Select No if it is not due to a status, comment, or limitation.

- 6. **Material Justification** this field only appears if the response in field #5 is No. There are times when it is okay to use a product that may not meet the statuses, comments, and limitations. The most common allowances are available to be selected from the dropdown; for example, there is a blanket waiver that allows the product to be used due to supply shortages. If the product is acceptable to be used, select the appropriate justification.
- a. **Blanket Waiver** Product Evaluation has issued a blanket waiver for the product's use to be used on all projects.
- b. **Project Waiver** Product Evaluation has issued a project waiver for the product's use to be used on this project.
- c. **Exempt** there are no exempt products at this time. In the future, products may be listed on the APL and designated as Exempt.
- d. **Other** if there is no applicable reason, select Other from the dropdown.
- 7. **Other Description** this field only appears if the response in field #6 is Other. Enter a short description of why the product was placed on the project. You don't need to provide the full disposition. Additional details will need to be provided on an automated MC Review finding.
- 8. Select the Save option.

**NOTE**: If Other is selected, the test will show as failing regardless of the information included in the Notes field. MAC will create a Materials Certification (MC) Review finding that will need to be processed.

#### B. Review and Submittal to FDOT

A Data Reviewer must confirm the sample information and test result. If the data is incorrect, make changes as needed. When the data is confirmed and/or updated, the sample can be Submitted to FDOT. If the contract, project, pay item, Material, category/type are incorrect, they cannot be updated or if they are updatable, it will not work properly. Samples with incorrect information in these fields must be deleted and reentered.

Check the following information

- Contract Number/Financial Project Id
- Pay Item(s) if it is not LS, DB or non-PrC contract
- MAC Spec
- Category/Type
- APL Number for products with multiple APL numbers, ensure the correct number was selected for the application



When the information is correct, select the Submit to FDOT option. The sample will be submitted. These samples are designated as auto finalized so the sample status will be updated to Finalized and it is considered to be closed.

# Chapter 4 – Pay Items with multiple APL products

Some pay items include multiple APL products as part of a system. For APL tracking, a sample for each component may need to be logged into MAC. Many of these items are part of a submittal package including shop drawings so the information may have to be gleaned from there. Other times, the system has an APL number that covers all or most of the system.

#### A. Guardrail

- Approach Terminal 31" TL-2 (End Anchorage Assembly) NCHRP 350
- Approach Terminal 31" TL-2, MASH
- Approach Terminal 31" TL-3 (End Anchorage Assembly) NCHRP 350
- Barrier Delineator
- Composite Offset Block
- End Anchorage Assembly 27" (Approach Terminal) NCHRP 350

## B. Retaining Wall Systems

- Retaining Wall (548)
- Geotextile Fabric (985 physical sample no APL tracking sample)

# C. Traffic Engineering

Traffic Engineering includes many components under different APL Specs. For example a signalized intersection may include Traffic Signals (650), Pedestrian Signal Assemblies (653), Mast Arm, Span Wire and Pole Mounting Assemblies (659), Vehicle Detection Systems (660), Traffic Controllers (671), Traffic Cabinets (676) and Traffic Controller Accessories (678).

# D. Highway Signs

## 1. Single Post Signs & Multi Post Signs

- Sign Sheeting (700)
  - May include reflective and non-reflective depending on the sign

#### 2. Sign Panel

- Sign Sheeting (700)
  - May include reflective and non-reflective depending on the sign

## 3. Overhead Signs

- Sheeting (700)
  - May include reflective and non-reflective depending on the sign
- Pull Box (635)
- LED Luminaire, (Sign) (715)
  - If used

#### 4. Internally illuminated Signs

- Illuminated Sign Highlighted Sign (700)
- Illuminated Sign Internally Illuminated Sign (700)
- Pull Box (635)
- Transformer Base (646)

#### 5. Dynamic Message Signs

- Dynamic Message Sign DMS LED Retrofit Kit (700)
- Dynamic Message Sign Embedded DMS (700)
- Dynamic Message Sign Front Access DMS (700)
- Dynamic Message Sign Walk-In DMS (700)
- Pull Box (635)
- Transformer Base (646)

#### 6. Electronic Display Sign

- Electronic Display Sign (EDS) Blank-Out Sign (BOS) (700)
- Electronic Display Sign (EDS) Electronic Regulatory Sign (ERS) (700)
- Electronic Display Sign (EDS) Electronic Speed Feedback Sign (ESFS) (700)
- Electronic Display Sign (EDS) Electronic Warning Sign (EWS) (700)
- Pull Box (635)
- Transformer Base (646)

#### 7. Sign Beacon

- Sign Beacon (700)
- Pull Box (635)
- Transformer Base (646)

# E. Highway Lighting

#### 1. Luminaire (715)

- LED Luminaire Retrofit Kits, (Conventional)
- LED Luminaire Wildlife (Conventional)
- LED Luminaire, (Conventional)
- LED Luminaire, (Underdeck)
- Pull Box (635)
- Transformer Base (646)

#### 2. High Mast Light Pole

- LED Luminaire, (High Mast) (715)
- Pull Box (635)
- Transformer Base (646)

#### 3. Pole Cable Distribution System - (715)

- Alternate Systems
- Products meeting Standard Plans 715-001 do not require listing on the APL

## **Chapter 5 – Tracking Reports**

The following reports are being developed by the State Materials Office (SMO) and will be posted on the MAC report page.

# A. APL Tracking Summary

This report is a list of all MAC Specs that include a requirement for a sample to be logged into MAC for APL Tracking.

# B. APL Tracking Sample Status

This report is a list of all MAC Specs on a Job Guide Schedule (JGS) for a specific project that include a requirement for a sample to be logged into MAC for APL Tracking and whether any sample(s) have been entered to date.

# C. APL Tracking Results and Acceptance

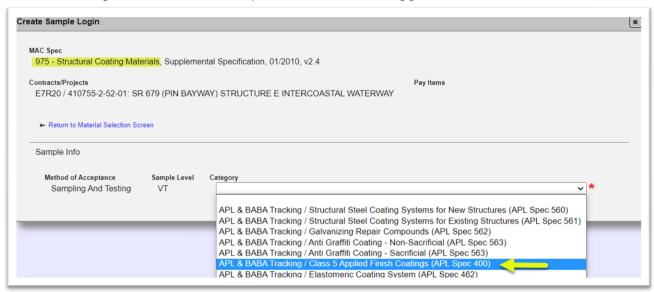
This report lists all the APL tracking samples on a specific project with their APL flag indicator (yes/no) and the user's response to the test question (yes/no). Each sample will need to be evaluated to ensure that there is no issue with the material acceptance. Those that did not get an automatic finding may need to have a manual finding added to the MC Review so the MAR resolution can be documented.

# **Chapter 6 – APL Product to MAC Spec Crosswalk**

In most cases, the APL Spec category and the MAC Spec will match. In some cases, the tracking sample will not be logged under the corresponding MAC Spec. Listed below are APL Specs that do not have APL tracking samples in MAC and those with a different MAC Spec from the APL Spec. If an APL Spec is not listed, use the same MAC Spec as the APL Spec.

APL Spec	APL Product	MAC Materia					
102	AII	N/A					
	102 products are not tracked in MAC because they are temporary.						
400	Class 5 Applied Finish Coatings	975					
458	Strip Seal Joint System						
462	Elastomeric Coating System						
521	Barrier Delineator – Barrier Walls						
546	Rumble Strips						
560	Structural Steel Coating Systems for New Structures	975					
561	Structural Steel Coating Systems for Existing Structures	975					
562	Galvanizing Compounds	975					
563	Anti-Graffiti Coating	975					
701	Profiled Thermoplastic Pavement Markings	971					
704	Durable Tubular Markers	994					
	Flexible Post Delineator						
705	High Performance Delineator	993					
	High Visibility Median Separator Delineator						
	Raised Pavement Marker Adhesive						
706	Raised Pavement Marker Class A						
700	Raised Pavement Marker Class B	970					
	Raised Pavement Marker Class F						
709	Two Reactive Component Traffic Marking, White	971					
703	Two Reactive Component Traffic Marking, Yellow	371					
	Durable Paint, White						
	Durable Paint, Yellow						
710	Standard Paint, Black	971					
	Standard Paint, White						
	Standard Paint, Yellow						
	Pavement Marking – Alkyd Hot-Spray Thermoplastic - White						
	Pavement Marking – Alkyd Hot-Spray Thermoplastic - Yellow						
	Pavement Marking – Alkyd Thermoplastic - White						
711	Pavement Marking – Alkyd Thermoplastic - Yellow Pavement Marking – Alkyd Thermoplastic High Friction - White						
	Pavement Marking – Preformed Thermoplastic - Black						
	Pavement Marking – Preformed Thermoplastic - White, Route Shields & Color						
	Pavement Marking – Preformed Thermoplastic - Yellow						
740	Permanent Tape – Black/Contrast						
713	Permanent Tape – White						
016	Permanent Tape – Yellow	NI/A					
916	All	N/A					
919	AII AII	N/A					
924		N/A					
	924 products tracked through mix design, not by project personnel. Prime and ta	ick coat tracking is					
	sample under MAC Spec 916. An APL tracking sample is not needed.	N1/A					
925	All	N/A					
	pound is not considered a "permanently installed" product.	N/A					
985	All Geotextile Materials	i. N/A					

When the APL Spec and MAC Material do not match, the MAC Material category / type will include the APL Spec in the type. Here is an example of the sample login screen for a Class 5 Applied Finish Coating which is APL Spec 400 but is logged into MAC under Material 975.





Why are there differences? All MAC Materials are based on the Specification Section where the Method of Acceptance (MOA) language is found. In these MAC Specs based on Division III Sections, that is where the project MOA language could be found. The Department is in the process of moving the MOA language from the Division III Sections (like 975) to the Division II Sections (400, 462, 560, 561, 562 and 563). This process would result in six new MAC Materials and MAC Specs to be maintained by the SMO. We still need to maintain the MAC Material based on the original Division III Specification.

# **Chapter 7 – Random Sampling Program**

Some APL products are part of the Random Sampling program. The program is described in <u>Materials Manual Section 5.10</u>. In addition to the APL tracking sample or a physical sample logged in under the project sample category, an additional program sample may need to be collected and submitted to the SMO.



Users should be aware of the process for sampling and submitting program random samples to the SMO. The full instructions can be found in the <a href="Program Random Samples taken on FDOT projects">Projects</a> instructions.

Users should contact the appropriate SMO Technical unit before collecting the sample to determine if a sample is needed for a specific product. If the SMO has already tested a specific product, we may not need a sample even if we are still testing for that Material.

- Physical Lab <u>SM-Physical@dot.state.fl.us</u>
- Chemistry Lab <u>SM-MACChemical@dot.state.fl.us</u>
- Corrosion Lab <u>SM-MACCorrosion@dot.state.fl.us</u>

For reference, here is MM 5.10 Table 1 which lists the products under the Random Sampling program.

Table 1: Project Sampling							
Construction Specification	Materials Specification	MAC Specification	Product Category	Sample Quantity	SMO Technical Unit		
353, 400, 449, 450,	926	926	Epoxy Compounds - All Types	1 tube or 1 pint each part	Physical Lab		
400	925	925	Membrane Forming Curing Compound	1 quart	Physical Lab		
400, 450, 649	934	934	Non-Shrink Grout	50 lb bag	Physical Lab		
400	975	975	Class 5 applied Finish Coating	1 quart	Corrosion Lab		
462	938	938	Post Tensioning Grout	50 lb bag	Physical Lab		
462	938	938	Flexible Filler	1 quart	Physical Lab		
521, 536, 705	993	993	Barrier Delineators	1 each	Chemistry Lab		
523		523	Patterned Textured Paving Products	3 feet or 1 pint each part	Chemistry Lab		

	Table 1: Project Sampling						
Construction Specification	Materials Specification	MAC Specification	Product Category	Sample Quantity	SMO Technical Unit		
536	536	536	Composite Offset Blocks	1 each	Corrosion Lab		
536, 705	993	993	Object Markers	1 each	Chemistry Lab		
560	975	975	Structural Steel Coating System	1 quart	Corrosion Lab		
562	975	975	Galvanized Steel Coating System	1 quart	Corrosion Lab		
563	975	975	Anti-Graffiti Coating Materials	1 quart	Corrosion Lab		
706	970	970	Raised Pavement Markers	5 each	Chemistry Lab		
706	970	970	Raised Pavement Marker Adhesives	1 block	Chemistry Lab		
709	971	971	Two Reactive Components	1 pint each part (preformed thermoplastic)	Chemistry Lab		
102, 710	971	971	Paint	1 quart	Chemistry Lab		
711	971 971	074	074	Standard Thermoplastic	3 feet		
		971	Preformed Thermoplastic	1 quart	Chemistry Lab		
713	971	971	Permanent Tape	3 feet	Chemistry Lab		
709, 710, 711, 713	971	971	Glass Spheres	1 quart	Chemistry Lab		
102	990	971	Removable Tape	3 feet	Chemistry Lab		
	930	930	Materials for Concrete Repair	50 lb bag	Physical Lab		
350, 400, 410, 458, 520, 521, 522, 524	932	932	Joint Materials	1 Block or 6 inches	Corrosion Lab		
	937	937	Post-Installed Anchor Systems	1 tube each part or 3 capsules	Chemistry Lab		
	975	975	Elastomeric Coatings	1 quart	Corrosion Lab		