



October 15, 2013

TO: Pasco Bakotich
State Design Engineer
MS-47330

FROM: Ted Bailey 
Signals, Illumination and ITS Engineer
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MS-47344

SUBJECT: **Proprietary Item Request for Slip resistant surface applications for utility boxes, frames and other similar appurtenances**

- **Extent of Approval:** Statewide
- **Approval Period:** July 1, 2013 – June 30, 2015

SUPPORTING DOCUMENTATION:

WSDOT requests a two year extension of the current statewide blanket approval for slip resistant applications for utility boxes, frames and other similar appurtenances that was initially approved by FHWA on June 24, 2011 with a June 30, 2013 expiration.

As part of WSDOT's ongoing commitment to implementing Americans with Disabilities Act (ADA) and Public Right-of Way Accessibility Guidelines (PROWAG) providing slip resistant application recommendations for junction boxes, cable vaults, and pull box lids and frames located in pedestrian circulation routes such as sidewalks, walkways, and shared use paths is required.

Since the initial approval WSDOT is still only aware of two manufacturers that produce and apply slip resistance surfaces that have lasted up to 10 years and meet the recommended coefficient of friction (COF) without being too rough:

- Mebec1 (their most aggressive surface); manufactured by IKG Industries.
- SlipNOT Grade 3 – coarse; manufactured by W.S. Molnar Company.

Both of these applications have been used successfully by WSDOT and other jurisdictions in WA State over the past two years along with the City of Seattle for the last 12 years. There are other lower cost, adhesive backed materials that meet the suggested COF number that could be applied to the surface of these boxes, but it is estimated that these materials would last less than 6 months when applied to steel in an outdoor setting before needing replacement.

WSDOT is committed to performance specifications, continues to research test procedures and plans to evaluate additional products as they come available. When there is industry agreement

on which test procedure(s) can effectively test the COF and predict long term durability, WSDOT will change to a performance based specification.

The ADA recommendation is that walking surfaces have a static COF of 0.6 for PAR's. During the past two years 3 different testing procedures have emerged for evaluating the static COF (ASTM F-1679, ASTM C-1028 and ASTM F-1667) for manufactured products.

Each static COF method returns different values for the same product. For example, published testing for SlipNOT material with the different test returns these values: (Mebec1 return similar results)

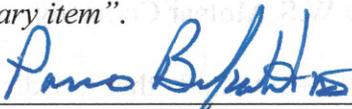
<u>ASTM test procedure</u>	<u>Dry COF</u>	<u>Wet COF</u>
ASTM F-1679	1.0	1.0
ASTM C-1028	0.93	0.92
ASTM F-1667	1.07	0.92

The industry is providing competing test methods that return different results when measuring the same material. Although each test result for this material exceeds the ADA recommended value of a static COF of 0.6, the values are different and there is no selection criteria that would recommend one test over another. These tests are performed on new materials and there is not a test that predicts how long this material will last in use. WSDOT would prefer to use a performance based specification that is tied to one test method that measures the initial static COF value while predicting the durability of the product.

It is in the public's best interest for WSDOT to specify these manufacturer's applications for use on WSDOT products throughout the state because there are no other equally suitable alternatives. These two manufacturer's applications are the only slip resistance surface applications that have lasted multiple years and meet the required static COF without being too rough. Other alternative applications are not equal in longevity and durability.

If you have any questions or need additional information, please contact Ted Bailey at (360) 705-7268 or baileyt@wsdot.wa.gov.

WSDOT CERTIFICATION: "I, Pasco Bakotich, State Design Engineer, of the Washington State Department of Transportation, do hereby certify that in accordance with the requirements of 23 CFR 635.411(a)(2), that no equally suitable alternative exists for this patented or proprietary item".



Pasco Bakotich, PE
State Design Engineer

10/18/13
Date