Sign Posting Standards and Guidance

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With highway authorities reducing their highway maintenance budgets year on year it becomes increasingly important that engineers make smart decisions when selecting appropriate road maintenance treatments. Road surface treatments in the main extend the service life of the existing road asset before asset replacement (e.g. resurfacing) becomes necessary. There is an array of treatments now available and these are described in some detail in the Road Surface Treatments Handbook which is freely available from www.rsta-uk.org.

It is a case of horses for courses with product or process selection critically important when budgets are tight. It is also important for the engineer or asset manager to know how to specify products and treatments i.e. what standards are available, is there any design guidance available, how do I select an appropriate contractor? These are all questions that need to be answered to ensure the job is done right first time and provides a durable solution. The good news is there is lots of guidance available particularly in the Manual of Contract Documents for Highway Works (MCHW) Volume 1 Specification for Highway Works for example. This document contains specification clauses that call up relevant product standards or in the absence of a product standard HAPAS (Highway Authorities Product Approval Scheme) certification may be required.

Treatments that are covered by a harmonised European Standard include Surface Dressing (BSEN 12271) and Slurry Surfacing’s (BSEN 12273). These are currently the only treatments covered by a standard. Other treatments are covered by HAPAS including; High Friction Surfacing (HFS), Thermal Patch Repairs, Asphalt Preservation Systems, Crack Sealing Systems, Grouted Macadam’s and Ironwork products.

There are some products and treatments that may only have a standard for the product but not for installation. Asphalt falls into this category with the BSEN 13108 series of standards only covering the product up to the point of delivery. So HAPAS is required for example when specifying end performance for Thin Surface Course Systems. Geosynthetics and Steel Meshes is another example where we have a Product Standard BS EN 15381 but no standard for installation.

Some treatments for example Spray Injection Patching have no standard (yet) and are also not covered by HAPAS so they are proprietary. However a new British Standard is being developed for Spray Injection Patching through BSI committee B/510/02 although it is probably unrealistic to see it published this year but you never know! Other treatments such as Retexturing techniques (Shot Blasting and Fine Milling) are included within the Design Manual for Roads and Bridges - DMRB; HD32 for treating concrete roads and HD37 for treating bituminous roads.

Then we have lots of industry guidance documents covering a plethora of subjects, it’s a case of knowing where to look. The DMRB is owned by Highways England and contains a lot of useful technical information on most treatments used. However the DMRB is to be updated over the next 3-4 years and will emerge as a slimmed down document focusing mainly on what we call the
Requirements (what is it and why should it be used) and how to measure and stipulate End Performance.

The RSTA ADEPT Codes of Practice will continue to provide much detailed information on a wide range of treatment options so hopefully any technical information removed from the DMRB will be covered in these Codes moving forward. These documents are all freely available at www.rsta-uk.org/publications. There are other sources of information including ADEPT (Association of Directors Environment Economy Planning and Transport) and of course TRL.

So the good news is there is lots of guidance out there for the highway engineer it’s a case of finding it, but the MCHW, DMRB and RSTA ADEPT Codes are a good starting point. It also important to note these documents are also being updated. The MCHW is about to be published following a lengthy review which started in 2013 whilst the DMRB is just starting its update. RSTA ADEPT Codes are also currently undergoing revision.

In the next article I will focus more on specific types of Road Surface Treatments and look in some detail at High Friction Surfacing. The RSTA run a series of training courses throughout the year on road surface maintenance and these can be found at www.rsta-uk.org/calendar.