



Note: The PROV published in November 2017 replaces OPSS 1441, September 1988 with no technical content changes.

MATERIAL SPECIFICATION FOR LOAD TRANSFER ASSEMBLIES

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1441.01 SCOPE

This specification covers the requirements for load transfer assemblies for use in concrete pavement expansion joints.

1441.02 REFERENCES

This specification refers to the following standards, specifications or publications:

Ontario Provincial Standards Specifications, Materials

OPSS 1442 Epoxy Coated Steel Reinforcement for Concrete

Canadian Standards Association Standards:

CAN/CSA-G40.21-M87 Structural Quality Steels

1441.05 MATERIALS

Side ladders and spacer bars shall be plain round bars according to CAN/CSA-G40.21.

Dowel bars shall be plain round bars of grade 300 or better according to CAN/CSA-G40.21. They shall be epoxy coated according to OPSS 1442.

Dowel caps shall be cold rolled deep drawn quality steel.

Compressible spacers shall be cold rolled blue tempered spring steel.

The Owner will consider approval of supporting structures (ladders) spacer bars and compressible spacers made of materials other than steel.

1441.07 PRODUCTION

1441.07.01 Fabrication

Dowel bars shall be cut and handled in such a manner as to avoid distortion or burrs that would inhibit free movement in the concrete. Welds shall be resistance or arc type. The assembly shall be readily separable into two parts to permit the greasing of the dowels and the addition of bulkheads and joint fillers.

Dowel bars shall not deviate from the prescribed angle of skew by more than one degree and shall be parallel to each other within a tolerance of zero degrees forty-five minutes. Dowel cap assemblies shall be fabricated with sufficient accuracy to permit the free movement of all dowels within the dowel caps.

Suitable wire ties shall be provided to hold the assembly in normal position during shipping and installation and to permit the fastening and unfastening of the dowel cap assembly.

1441.07.02 Patching

After fabrication, all areas of the dowel bar with damaged epoxy coating shall be cleaned and painted with a patching material according to OPSS 1442.