

BONDING AGENTS
FOR
PORTLAND CEMENT CONCRETE AND MORTAR

INTRODUCTION:

Structural repairs of bridge piers and abutments require patching concrete or mortar be placed at various thicknesses. Whether concrete or mortar is used depends upon the depth of the patch to be made. In some instances, the use of a liquid bonding agent has been specified in the mixes as well as in a grout scrubbed onto the surface to be patched prior to the mix placement.

Most of the bonding agents presently approved by the Iowa D.O.T. are polyvinyl acetate (PVA) or some type of latex.

In a general discussion with a consultant about various types of bridge repair materials and processes, the subject of bonding agents was discussed at some length. It was the opinion of the consultant that the usage of polyvinyl acetates should be discontinued because of possible deterioration of this material with time. Some of these materials apparently re-emulsify in a high moisture environment causing serious patch deterioration. As a result of this information, a study was initiated to determine the durability of these materials.