



**NOTES:**

1. Specific site conditions may require an increase in concrete encasement dimensions and/or reinforcement. It is the customer's responsibility to ensure the concrete encasement is designed for the application. A minimum concrete strength of 25MPa is recommended. The concrete should be vibrated to eliminate air pockets. *Engineering advice may be required.*
2. The finished level of the concrete encasement must be approximately 3mm above the top of the channel edge.
3. For further details, refer to ACO's design & site installation files at [www.acodrain.com/resources](http://www.acodrain.com/resources).

**SPECIFICATION CLAUSE  
POWERDRAIN S300K - LOAD CLASS C-D**

**GENERAL**

THE SURFACE DRAINAGE SYSTEM SHALL BE ACO'S POWERDRAIN S300K POLYMER CONCRETE V-PROFILE CHANNEL SYSTEM WITH DUCTILE IRON EDGE RAILS AS MANUFACTURED BY ACO.

**MATERIALS**

S300K CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN DUCTILE IRON EDGE RAIL. PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS WITH SUPPORTING DOCUMENTATION:

|                                       |                                |
|---------------------------------------|--------------------------------|
| COMPRESSIVE STRENGTH:                 | <b>98 MPa</b>                  |
| FLEXURAL STRENGTH:                    | <b>26 MPa</b>                  |
| TENSILE STRENGTH:                     | <b>14 MPa</b>                  |
| WATER ABSORPTION:                     | <b>0.07%</b>                   |
| FROST PROOF:                          | <b>YES</b>                     |
| COEFFICIENT OF EXPANSION/CONTRACTION: | <b>2.02x10<sup>-5</sup>/°C</b> |
| WATER VAPOUR TRANSMISSION:            | <b>0.0364g/m<sup>2</sup></b>   |
| NON FLAMMABLE:                        | <b>YES</b>                     |
| COEFFICIENT OF ROUGHNESS (MANNINGS):  | <b>n=0.011</b>                 |
| RESISTANT TO WEATHERING:              | <b>YES</b>                     |
| DILUTE ACID AND ALKALI RESISTANT:     | <b>YES</b>                     |
| SF SEALANT GROOVE                     | <b>YES</b>                     |

**CHANNELS**

S300K CHANNEL SHALL BE 300mm NOMINAL INTERNAL WIDTH WITH AN OVERALL WIDTH OF 360mm. CHANNEL INVERT SHALL HAVE A V-PROFILE TO ALLOW EFFICIENT DRAINAGE. S300K SLOPED CHANNELS SHALL HAVE A BUILT-IN SLOPE OF 0.5%. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

**GRATES**

INSERT SPECIFICATION FOR THE SELECTED GRATE. REFER TO THE RELEVANT ACO SPECIFICATION INFORMATION SHEET, CLICK [www.acodrain.com.au/resources](http://www.acodrain.com.au/resources).

**INSTALLATION**

THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO AND TO BE INSTALLED FOR ITS INTENDED PURPOSE. ANY DEVIATION OR PARTIAL USE OF THE SPECIFIED SYSTEM AND/OR IMPROPER INSTALLATION WILL VOID ALL WARRANTIES PROVIDED BY ACO.

SK3-CD-A2



DATE: 03/14

**S300K - POWERDRAIN - LOAD CLASS: C-D  
FOR ASPHALT**

**INSTALLATION DRAWING - ACO DRAIN**

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