

# S. Alok Enterprises Pvt. Ltd.

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## HIGH-LIGHTS OF RENOLITH

We are introducing **RENOLITH** a Polymer based Chemical, which is used in Road Construction. This product of ours has revolutionized the concept of Road Construction in many parts of the world. Some of the salient features of this product are:

1. It is cost effective
2. Time saving
3. Environment friendly
4. Lower Maintenance Cost

### 1. COST EFFECTIVE

It reduces the cost in two ways: Firstly, the thickness of base & sub-base is reduced by 10-20% by using this chemical. This results in the cost reduction by approximately 20% irrespective of whether is Highway or Rural Road.

Secondly, as the mixing is done at the site so lot of transportation cost is saved.

### II. TIME SAVING

- a) As the thickness of base and sub-base is reduced so less time is required for Road Construction.
- b) Mixing being done at the site itself so it saves lot of time in transportation as well as cost.
- c) Road could be in use within 3 hours of construction.

### **III. ENVIRONMENT FRIENDLY**

Road made out of our chemical do not crack, as there is no seepage/evaporation of water, which is the main cause of potholes. Load bearing capacity of this road is much higher with the result that deflection on the road due to load is minimized.

Hence, we can say that roads constructed from this product are superior to the conventional roads. This gives more life to vehicles.

Some of the successful projects done so far are

- i. Office complex road of M/s AD Hydrom Ltd. (Hanali).
- ii. Connecting road of New Secretariat with NH-61 in Kohima (Nagaland).
- iii. Roads of CIDCO (Maharashtra) in Navi Mumbai.
- iv. Varna by pass road in Goa.
- v. Roads in Chauzachen Hydel Project (Sikkim).

#### **Some on-going projects are:**

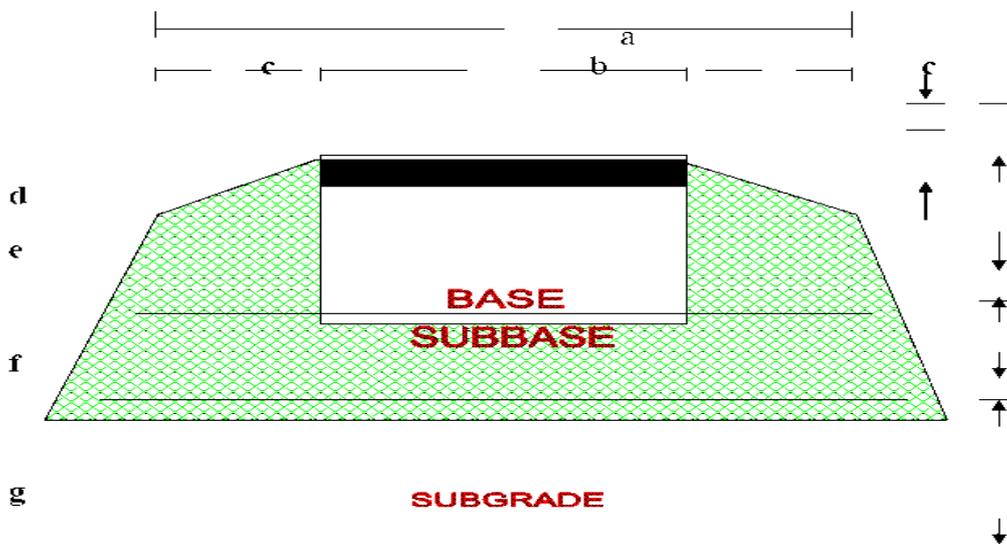
- i. Additional roads of New Secretariat Complex (Nagaland)
- ii. Budhil Hydel project (Chamba) by Lanco Group

So we would like you to use our material on your roads and see the results for yourself. A questionnaire is attached with the literature. Kindly fill up and receive us along with DPR of conventional road so that we can give you costing road using **Renolith**.

## QUESTIONNAIRE

To give costing we need following information:

- i. Density of Soil
- ii. Type of Soil
- iii. Liquid Limit
- iv. Plastic Limit
- v. Cross Section of the road giving full details of the dimensions as in figure below.
- vi. Costing of the road with the conventional method or present cost of road with full details i.e. earthwork, sub-base and premix carpeting.
- vii. CBR of the soil.
- viii. Ration of slope
- ix. OMC of soil.



## Mixed Design Table (Renolith Soil Stabilisation Road Base)

Soil Properties	Test procedure	Crushed Aggregate Poor graded	Crushed Aggregate Poor graded	Soil Aggregate Well graded	Soil Aggregate Well graded	Silty sand Low PI	Clayey sand High PI	Coarse sand Non Plastic	Fine sand Non Plastic	Sandy silt low LL	Clay silt High LL	Silty Clay	Clay
Passing sieve 0.075 mm	AASHTO 727-70	5-15%	5-15%	5-20%	21-35%	36-50%	36-50%	0-15%	15-30%	51-65%	66-90%	81-90%	>90%
Los Angles Abrasion	ASTM C 131	<40%	<40%	<60%	<60%	<60%	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Liquid Limit (LL)	AASHTO T 89	<25%	<25%	<35%	<40%	<40%	<40%	Non Plastic	Non Plastic	N.A.	N.A.	N.A.	N.A.
Plastic Index (PI)	AASHTO T 90	<6%	<6%	<11%	<15%	<20%	N.A.	Non Plastic	Non Plastic	N.A.	N.A.	N.A.	N.A.
Cement ( <i>by weight of soil</i> )		3%	3.5%	4%	5%	6%	7%	6%	7%	8%	9%	10%	11%
Renolith ( <i>by weight of cement</i> )		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Remarks												Unsuitable	Unsuitable

1. For well graded crushed aggregate :  $C_u > 4$  and  $1 < C_v < 3$
2. For well graded soil aggregate :  $C_u > 6$  and  $1 < C_v < 3$
3. For coarse sand : percent passing sieve 0.425 mm less than 60%
4. For find sand : percent passing sieve 0.425 mm more than 60%

This mixed design table is from Unconfined Compressive Strength Test that not less than 1.7 Mps for 7 day curing

To give the costing, the following information are required:-

- i) Density of Soil
- ii) Type of Soil
- iii) Liquid Limit
- iv) Plastic Limit
- v) Cross Section of the road giving full details of the dimensions
- vi) Cost of the road with the conventional methos or present cost of road with full details i.e. earthwork, sub-base, base and pre-mix carpetting.
- vii) CBR of the soil.
- viii) Ratio of slope
- ix) OMC of soil

**TO WHOM IT MAY CONCERN**

This is to certify that the stretch of NH 61 to New Secretariat road in Kohima, Nagaland constructed using RENOLITH is in very good condition and there has been no failure after one full monsoon season. The condition of the road meets all necessary standards and specifications set by the Nagaland PWD.



  
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