



**TECH SOLUTIONS 608.0
STYROFOAM™ BRAND HIGHLOAD
INSULATION FOR AIRPORT RUNWAYS**



**KEEPING RUNWAYS
CLEAR FOR TAKEOFF**

Airport runways run the risk of damage in regions where underlying soils are susceptible to seasonal frost heave and breakup. For more than 35 years, STYROFOAM™ Brand HIGHLOAD Extruded Polystyrene Insulation has provided airport runways with protection against such seasonal elements.

STYROFOAM™ Brand HIGHLOAD 40, 60 or 100 Insulation is often specified to eliminate the damaging effects of frost action beneath airport runways, taxiways, aprons or tarmacs. Whether it's the differential pavement movement caused by frost heave or the potential weakening of pavement strength due to spring thaw (or even permafrost thaw), thermal insulation has been successfully used beneath numerous airport pavements for years.

In Table 1, examples of insulated airport construction projects are listed. A select list of references provides additional information sources on insulated airport pavement design and performance.

Samples of STYROFOAM™ Brand HIGHLOAD 40, 60 and 100 Insulation recovered from various runway, highway and railroad test installations over the years have shown little increase in water absorption or loss of thermal resistance. In these cases, the insulation's structural integrity was retained.

STYROFOAM™ Brand HIGHLOAD Insulation products are durable, versatile and reusable – making them a preferred choice for a variety of high-load applications, including airport runways.

STYROFOAM™ BRAND HIGHLOAD INSULATION FOR AIRPORT RUNWAYS

TABLE 1: INSULATED AIRPORT CONSTRUCTIONS

Date	Facility	Location	Owner	Comments
1967	Airport Runway ¹	Anchorage International Airport, Alaska	Alaska Division of Aviation, Dept. of Public Works	50 mm and 100 mm STYROFOAM™ Brand HIGHLOAD 40*
1969	Airport Runway ²	Kotzebue, Alaska	Alaska Division of Aviation, Dept. of Public Works	Permafrost; 648 m runway insulated with 100 mm STYROFOAM™ Brand HIGHLOAD 40
1973	Airport Runway	Resolute Bay, Northwest Territories	Transport Canada	Permafrost; 15 m x 15 m insulated with 50 mm STYROFOAM™ Brand HIGHLOAD 60
1974	Airport Runway ³	Kapuskasing, Ontario	Transport Canada	49 m x 71 m of 50 mm STYROFOAM™ Brand HIGHLOAD 60
1978	Airstrip ⁴	Tunaliik, Alaska	Husky Oil Ltd.	Permafrost; 1.6 km long x 45.7 m wide using 50 mm STYROFOAM™ Brand HIGHLOAD 60
1978	Airstrip ⁴	Inigok, Alaska	Husky Oil Ltd.	Permafrost; 1.6 km long x 45.7 m wide using 75 mm STYROFOAM™ Brand HIGHLOAD 60
1979	Airstrip ⁴	Lisburne, Alaska	Husky Oil Ltd.	Permafrost; 46 m x 1.6 km using STYROFOAM™ Brand HIGHLOAD 60
1981	Airstrip ⁵	Buckland, Alaska	Alaska Dept. of Transportation	Permafrost; 732 m of 150 mm STYROFOAM™ Brand HIGHLOAD 40
1981	Airstrip ⁵	Deering, Alaska	Alaska Dept. of Transportation	Permafrost; 0.8 km of 50 mm STYROFOAM™ Brand HIGHLOAD 40
1985	Airstrip ⁵	Deadhorse, Alaska	Alaska Dept. of Transportation	Permafrost; 110 m of 50 mm STYROFOAM™ Brand HIGHLOAD 60
1985	Airstrip ⁵	Nunapitchuk, Alaska	Alaska Dept. of Transportation	Permafrost; 0.8 km of 150 mm STYROFOAM™ Brand HIGHLOAD 60
1990	Airstrip	F.O.L., Inuvik, Northwest Territories	Dept. of National Defense	Permafrost; 50 mm of STYROFOAM™ Brand HIGHLOAD 60
1991	Airport Runway	Killam-Sedgewick, Alberta	Alberta Dept. of Transport	4,000 m ² of 50 mm STYROFOAM™ Brand HIGHLOAD 40
1994	Whitehorse Airport	Yukon Territory	Government of Yukon	319 m ³ STYROFOAM™ Brand HIGHLOAD 60

*STYROFOAM™ Brand HIGHLOAD 40 Insulation was called STYROFOAM™ Brand HI-35 at the time of this installation.

For Technical Information: 1-866-583-BLUE (2583) (English) 1-800-363-6210 (French)

For Sales Information: 1-800-232-2436 (English) 1-800-565-1255 (French)

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CAUTION: This product is combustible. Protect from high heat sources. A protective barrier or thermal barrier may be required as specified in the appropriate building code. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-519-339-3711.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mould formation. No material supplier including Dow can give assurance that mould will not develop in any specific system.

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