

# Polybenzimidazole (PBI) S26 Solution

PBI Performance Products' standard PBI solution is a suitable product for film casting, dip coating, spray coating and resin impregnation. The standard solution contains 0.7 dl/g PBI polymer dissolved in Dimethylacetamide (DMAc) in the presence of a LiCl stabilizer.

PBI can be firmly adhered to steel, stainless steel, aluminum, copper, nickel-chromium, glass, ceramics and plastics.

PBI coatings are highly resistant to heat and chemical attack. PBI will provide electrical insulation and wear resistance.

Free standing films and microporous coatings can be used for filtrations, gas separations, forward and reverse osmosis.

The LiCl stabilizer imparts long shelf life and can be easily removed with an 85C, 1-hour, aqueous wash of a thin film.

While DMAc is the preferred solvent, it is generally regarded as hazardous. Users of the PBI solution should consult Material Safety Data Sheets and other available information and follow appropriate safety precautions.

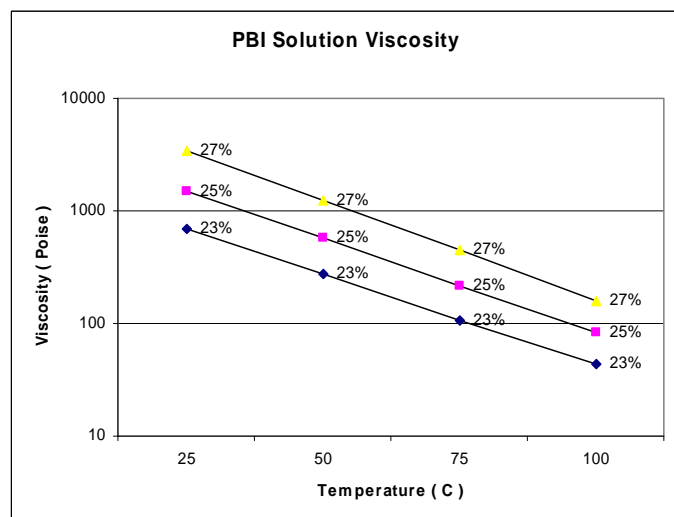
## Typical Properties of S26 PBI Solution

Solids (%) w/w	26.2
Solvent (DMAc) (%) w/w	72.3
LiCl (%) w/w	1.5
Viscosity (Poise)	2100+/- 200
Stability	6 months
Color	red-brown

## Viscosity of PBI/DMAc Solutions after Dilution with Additional DMAc at 25C

<u>PBI Solids (%)</u>	<u>Viscosity (Poise)</u>
25	2000
20	175
15	20
10	2
5	0.2

## Effect of PBI Concentration and Temperature on Viscosity of PBI Solutions (0.7 dl/g Polymer in DMAc with 2% LiCl)



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