



FUTURE BANGLADESH ON THE FIRMEST FOUNDATION

Chosen steel for the Padma Bridge construction

KSRM

শেকড় থেকে শিখরে

LEADING THUS FAR IN
BUET FATIGUE TEST

**BUET
APPROVED**

**55 LAC
CYCLIC LOADS
@369 MPa**

KSRM.COM.BD | 01755 665776

✓ Ductility

✓ Weldability

✓ Bendability

KABIR GROUP

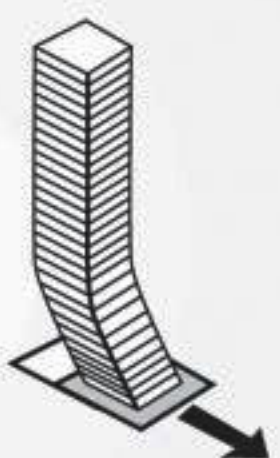
IS YOUR HOME SAFE AGAINST THE ATTACK OF AN EARTHQUAKE?

The steel rod that holds the core structure to your home must be firm and strong. Yet, whether it can really tackle a moderate to heavy earthquake does make the issue a bit more technical. A rod having passed the Fatigue Test is actually essential here.

What is this fatigue or fatigue strength?



Fatigue is basically a synonym to exhaustion. But how can a metal get exhausted or tired? When some sort of stress is repeated on some point of any given material, that point gets more and more weakened, only natural. And if the recurrence be really high, beyond a certain stage that material might break down even at a lesser single pressure than that it was normally supposed to absorb. That is 'Fatigue'; as long as a material's physical performance is concerned.



Likewise, 'Fatigue Strength' in relation to a particular material is the level of cyclic stress which that material can tolerate. Generally it gives an impression about that material's long-term capacity to bear loads. A multi-storey building naturally has to face various loads and stresses years after years, which all leave a cumulative affect like a fatigue. As a major and serious example moreover, an earthquake creates an extra-ordinary type of massive shake of your building. Shakes come as multi-directional waves and from all the sides of the structure in such a case, and this is called 'Cyclic Loading'. Fatigue strength of a rod is tested in a laboratory just by creating such cyclic loadings up to a real high number on the recurrence scale. And so, that suggests us about the rod's capacity to bear such real huge loads.

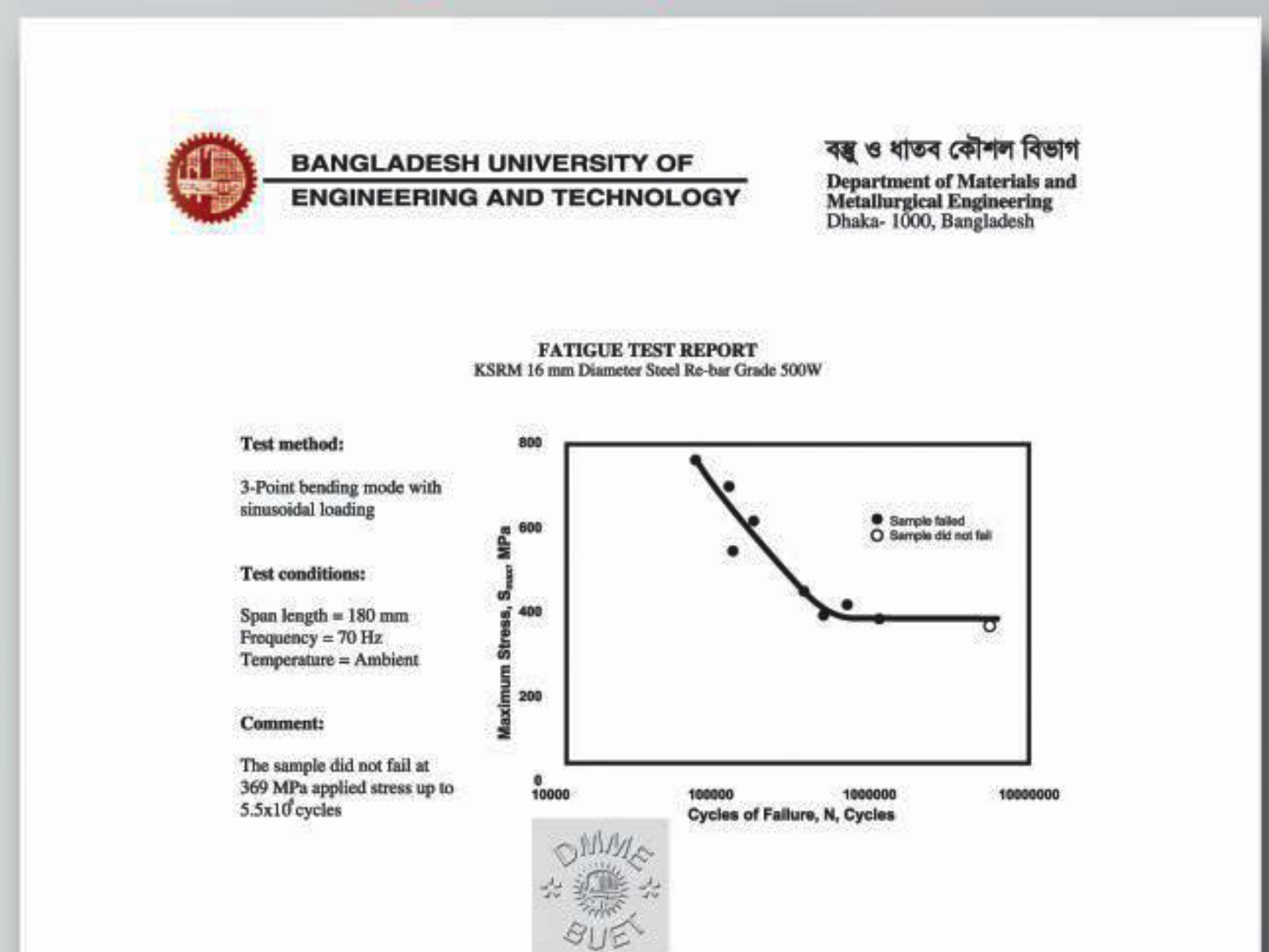


Why is this fatigue test a must before your construction starts?

When there has been some crack, however small, due to fatigue; a rod can collapse even at a much lower stress than its capacity. The structures that use cement casting – such as bridges, flyovers, multi-storey houses and those erected near seashores – are more vulnerable to cyclic loads. And hence, when a structure of any of these types is going to be built, a fatigue test for each rod to be used is just as essential as yield strength, tensile strength, elongation, bend and re-bend tests.

As already covered above, the severity of an earthquake's shakes and stresses is much higher than and different from that of any other type of load. And you also know, Bangladesh is one of the countries that are very prone to earthquakes. Various studies particularly suggest that Bangladesh is at a real high risk of heavy ones in near future. Then why would you risk your home and future, by using a rod that is not fatigue tested?

Fatigue Test Report of KSRM



To be certain and clear about a rod's fatigue strength, you have to see not only how much cyclic loads it can take but also what the level of the applied load was. Take an example for the calculation. You are given two choices. One rod could bear 50 lac cyclic loads of 250 megapascals, and the other one survived 50 lac cyclic loads of 350 megapascals. Which one will you choose? Of course the second one, since that could take the same number of even heavier loads. This is why we have put an equal emphasis, while testing the fatigue strength of our rod, on the level of the cyclic loads side by side with their number.

A super-satisfactory success of KSRM in Fatigue Test

In the BUET's Fatigue Test, KSRM 500W has been able to bear 55 lac plus cyclic loads of 369 megapascals, much higher than any other rod of Bangladesh ever could. So, simply choose KSRM 500W for your construction, without any worries. Keep safe and in peace, year after year after year.