

(Entrusted test organization: Harbin Welding Institute Huatong Welding Industry)

3-1. Wear resistance to impact

- ✓ Test material: WKL-B, Swedish HARDO*400 and HARDO*500, American Xinggegang (XGG) SA1750CR; grinding impact material: bearing steel GCr15
- ✓ Test equipment: multi-functional friction wearing test machine of model M-200
- ✓ Test parameters: rotation speed of the upper sample:180 rpm; rotation speed of the lower sample: 200 rpm; impact frequency: 230 times/ min, impact load: 200N, impact contact force: 40Mpa; medium: standard quartz sand; grain size: 100-150 mesh, flow rate of quartz sand: 1.5-2kg/h; sample period: 90000 rotations.。
- ✓ Test result: as shown in the table, **the wear resistance to impact of WKL-B is comparable to American XGG and is improved by about 80% compared to HARDOX 400 and 500.**

Comparison of impact wear of the following materials

Sample No.	Material	Wear loss (mg)	Volume wear loss($10^{-6}\text{mm}^3/\text{Nm}$)
1	WKL-B	109.25	5.34
2	American XGG SA1750CR	108.97	5.32
3	Mn13	215.25	9.67
4	Swedish Hardox400	210.38	9.41
5	Swedish Hardox500	192.61	8.72