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**ZHUSHOU GOODE INDUSTRY CO., LTD**

# AGRICULTURE TUNGSTEN TILES



In the agriculture industry, wear is a common problem that is largely caused by ground contact causing abrasion against wear parts. When choosing wear parts, users must understand local conditions and the environment type in order to make the right decision, as factors such as the number of ploughed hectares will affect the wear part needed.

To help reduce the effects of wear, Goode Carbide manufactures Kobide, an effective and durable wear part specifically for the agricultural industry.

Kobide is an innovative tungsten carbide composite material that offers weldable wear protection and combines high performance with easy installation.

Not only can Kobide be used on a variety of different agricultural machines and ground-engaging tools, but it has been proven to save time and money after extensive testing in the field.

Kobide is one of the world's hardest weldable materials and is ideal for applications involving sliding wear and in situations where brazing is not an option. As brazing techniques can decrease the wear performance of steel machinery through high heat input, Kobide is a highly useful option as it protects the lifespan of steel components and is complementary to brazed tungsten carbide edges.

## Shop Kobide

It is an ideal solution for combatting sliding wear and preventing thinning or "washing" and is also well suited for situations where brazing is not an option and hardfacing is too slow. The most common machines that Kobide is typically used on include seed drills, subsoilers, cultivators, ploughs, muck spreaders, mowers, root harvesters, sugar cane harvesters, buckets, augers, and scrapers.

Kobide works most effectively when used in conjunction with conventional tungsten and when welded to the body of a part.

This is usually done behind the tungsten edge in order to improve the overall life and body of the tool. However, Kobide should not be used in above ground high speed applications such as hedge flails and toppers.

When used for the correct applications, Kobide users can achieve a much greater working life and performance from wearing metal parts. As well as the increased service life, Kobide also helps to reduce downtime and save time & money on the farm as equipment does not need to be repaired as frequently.

## WHERE TO USE KOBIDE

### In all soil types, fit Kobide to:

- All scrapers
- Behind regular tungsten
- The sides of subsoiler legs
- The sides of cultivator legs
- The front of subsoiler shins
- Straw rake tines
- Many types of drill coulters
- Manure spreader beaters

### On land with no stone, fit Kobide to:

- Power harrow tines
- Subsoiler points and wings
- Plough points and wings
- Cultivator points
- Bed tiller tines
- Beet harvester turbine tines
- Beet harvester shares
- Sugar cane harvester base cutters

### Why choose Kobide

Kobide combines hardness and toughness to make it durable and crack resistant. It can also help to increase the performance and service life of parts and equipment compared to other AR steel grades.

Avoid downtime, increase part lifetime: Kobide helps avoid equipment downtime and increases part lifetime. This reduces the time spent replacing worn parts during the agricultural season and increases the uptime of machinery.

Improved farm profits: Kobide helps to reduce spend on wearing metal and avoids unplanned downtime mid-season which in turn improves profit and efficiency on-farm.

Easy to install, quick for repairs: standard MMA and MIG welding methods can be used to install Kobide tiles and Kobide can be welded to any position, where brazing tungsten or ceramics cannot be used.



**Better seed establishment, better tillage quality:** Thanks to the superior wear performance of Kobide, the ground engaging tool keeps its depth and profile for longer, better placing seeds and working deeper for longer.

**Reduce diesel use:** the attractive wear-performance: weight ratio of Kobide gives maximum wear protection without increasing weight of trailed machinery. Moreover, tools cut sharper lines and packer scrapers remove soil more efficiently when using Kobide, again reducing diesel usage.

**Improved soil health:** soil disturbance is kept to a minimum thanks to low-profile Kobide tiles which reduce draft whilst giving wear protection. This results in minimal soil movement.

**Reduced operations costs:** for manufacturers, distributors, and repairers, a small Kobide stock can be used for a wide range of parts. This reduces cost held in stocks.

**Protect investment:** Kobide is successfully welded behind brazed tungsten edges, greatly increasing the overall life of the part and achieving maximum output from the brazed tungsten.

### **Kobide is built to withstand the toughest conditions**

No matter what soil conditions you work in, Kobide stays strong against even the most severe abrasive conditions. Kobide has been proven in the field as being an abrasion-resistant composite of choice that can help improve the service life of parts and equipment.

Kobide's performance isn't just at surface level. Hardness and durability run all the way through Kobide wear parts.

Kobide's toughness isn't just at surface level. Hardness and durability run all the way through Kobide wear parts.

Whatever you need Kobide for, you'll find a range of dimensions to suit your application.

### **Quality and Testing**

You can trust that all Kobide parts are manufactured to high quality standards and every production batch is thoroughly checked by a team of Quality Inspectors and tested for dimensional accuracy and hardness levels. Further, samples from each batch undergo abrasive wear ASTM G65 testing to ensure consistent wear resistance.

We also use on-site laboratory equipment to ensure that all Kobide components have the necessary micro-structures needed to cope in the environments that they are used in.

Kobide has more than six successful years in the field to prove real-life performance and long-term material reproducibility. Every batch of Kobide is tested in our technical centre to maintain highest quality standards. Regular mechanical testing includes various wear testing methods.

### **Sizes**

Kobide can be produced in bespoke shapes and dimensions according to customer requirements. The standard low-profile tile dimensions are as follows:

4mm thick – 8 x 40 mm – 15 x 40 mm – 25 x 60 mm – 40 x 40 mm

6mm thick – 15 x 40 mm – 25 x 60 mm – 40 x 40 mm

8mm thick – 15 x 40 mm – 25 x 60 mm – 40 x 40 mm

### **The following assemblies are available as standard:**

15x200mm / 25x180mm / 40x200mm / 200x200mm

Kobide tiles can also be supplied with studs welded, or on steel-backing for added impact resistance.

