
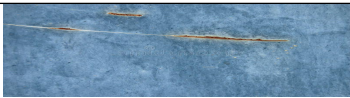



PROPERTIES OF METALS

5.1. Vocabulary

Ex. 1. Match the words with their Russian equivalents.

1. dent		a. совместимый
2. compatible		b. вмятина
3. advantage		c. преимущество
4. provide		d. ржавчина
5. drawback		e. расширение
6. longevity		f. стойкий
7. resistant		g. обеспечивать
8. scratch		h. царапина
9. patina		i. долголетие
10. expansion		j. недостаток
11. coating		k. пати́на; пленка или налет
12. treated		l. стираться
13. wear away		m. обработанный
14. prone		n. покрытие
15. rust		o. склонный

Ex. 2. Complete the sentences with the given words.

coating, compatible, prone, dent, treated, wear away, advantage, longevity, resistant, patina, scratch, expansion, rust, drawback

He used the _____ (1) of his experience to finish the welding project early.

The metal had a protective _____ (2) to prevent rust during the welding process.

Make sure to use _____ (3) materials for welding to avoid any issues.

There was a _____(4) in the metal after the welding was completed.

Some metals are more _____(5) to warping during the welding process.

Using a _____(6) material is crucial for a durable welding job.

The presence of _____(7) before welding can weaken the joint.

Be careful not to _____(8) the metal surface when welding to maintain its integrity.

The _____(9) metal was easier to work with during the welding job.

Over time, the constant heat may cause the metal to _____(10) during welding.

A major _____(11) of welding in humid conditions is the risk of corrosion.

The _____(12) of the metal caused some issues during the welding process.

Quality welding can ensure the _____(13) of the structure.

The _____(14) on the metal gave it a unique look after welding.

5.2. Reading

Ex. 1. Read the text.

Welding involves the use of various types of metal, each with its unique properties. Iron is a common choice due to its strength and durability. However, it is prone to rust if not properly treated. On the other hand, gold and silver are also used in welding but are less resistant to scratch and dent.

One major advantage of using these metals is their compatibility with different welding techniques. They can also provide an aesthetic appeal

through the development of a natural patina. However, a drawback is that they might wear away faster than other metals.

Metal expansion is another factor to consider. Metals like iron can withstand significant thermal expansion, while gold and silver have different expansion rates, which can impact the longevity of the weld. Using a proper coating can help in protecting the weld and enhancing its longevity. But remember, no matter how well the metal is treated, it is still prone to some degree of wear and tear over time.

Ex. 2. *Answer the questions.*

1. What are some common types of metal used in welding?
2. Why is iron a popular choice for welding despite its tendency to rust?
3. How do gold and silver differ from iron in terms of resistance to scratch and dent?
4. What advantage do these metals offer in terms of compatibility with different welding techniques?
5. How can the use of gold and silver provide an aesthetic appeal in welding?
6. How does metal expansion play a role in the longevity of a weld?
7. What can be done to protect a weld and enhance its longevity, especially when using metals like gold and silver?

5.3. Communication Ex. 1. *Make sentences using the following words:*

1. conduct/heat/well
2. strong/durable/construction
3. copper/aluminum/common
4. steel/structural/applications
5. creates/strong/bond
6. properties/metals/manipulated
7. different/melting/points
8. welders/understand/properties
9. metal/alloys/combinations
10. safety/equipment/training

