

CORODUR[®] 79

CLASSIFICATION:

DIN 8555 DIN EN 14700
 MF 10-70-GZ T Fe 16-70-GZ

GENERAL CHARACTERISTICS:

CORODUR 79 is a C-, Cr-, Nb- B flux-cored wire with added refractory carbides designed for parts that are exposed to extreme mineral wear with light impact stress. The weld deposit has a very high scratch hardness. Typical applications are sinter plants, lignite mining bucket wheels, drag-line buckets and chains, gravel mining, sand dredging, and ground engaging tools in the agricultural sector.

APPLICATION:

Mining, Cement Clinker, Sinter (the hardness can be maintained without any significant degradation up to 650°C). Cement pumps, slurry chutes, agricultural tines, bucket sides, dredges, tooth adapters etc. Can be provided as a clad plate (2+2, 4+4, 4+6, 6+6) by special request.

TYPICAL ALL WELD METAL ANALYSIS %

C	SI	Mn	Cr	Ti	Mo
5.0	<1.5	-	21,0	-	-
Co	Nb	Ni	other	Fe	
-	>6.0	-	~7.5	bal	

HARDNESS:

64 – 68 HRC (maximum hardness achieved in 2nd & 3rd layers)

WELDING PARAMETERS:

Measurement	Voltage	Amperage
1.6mm	20-26	160-260
2.0mm	22-26	240-280
2.4mm	23-27	280-340
2.8mm	25-28	320-400

FORMS OF DELIVERY:

Kind	Coil BS 300	Coil B 450	Pay off pack	-
Weight	15kg	25 kg	300kg	-

WELDING RECOMMENDATION:

The surface to be hard faced should be clean and free of rust, scale or grease and other contamination, preferably by grinding or grit blasting.

Best results can be achieved by slow-cooling the weld under a blanket. Maximum 2-3 layers (~10mm). Buffer old layers of hardfacing with a layer of **CORODUR-200K / 250K**.

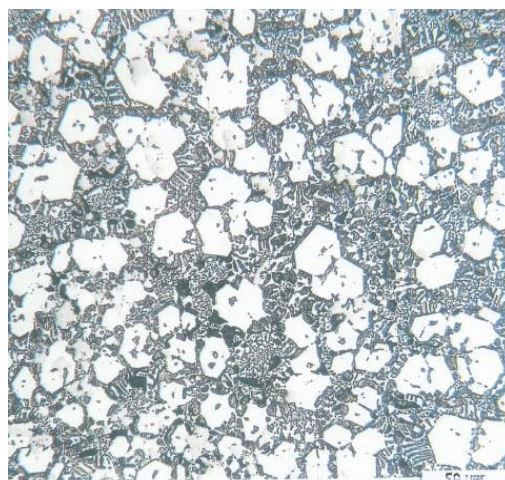
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Corodur Fulldraht GmbH has a continuous program of product development and, in this context, reserves the right to alter specifications without prior notice.

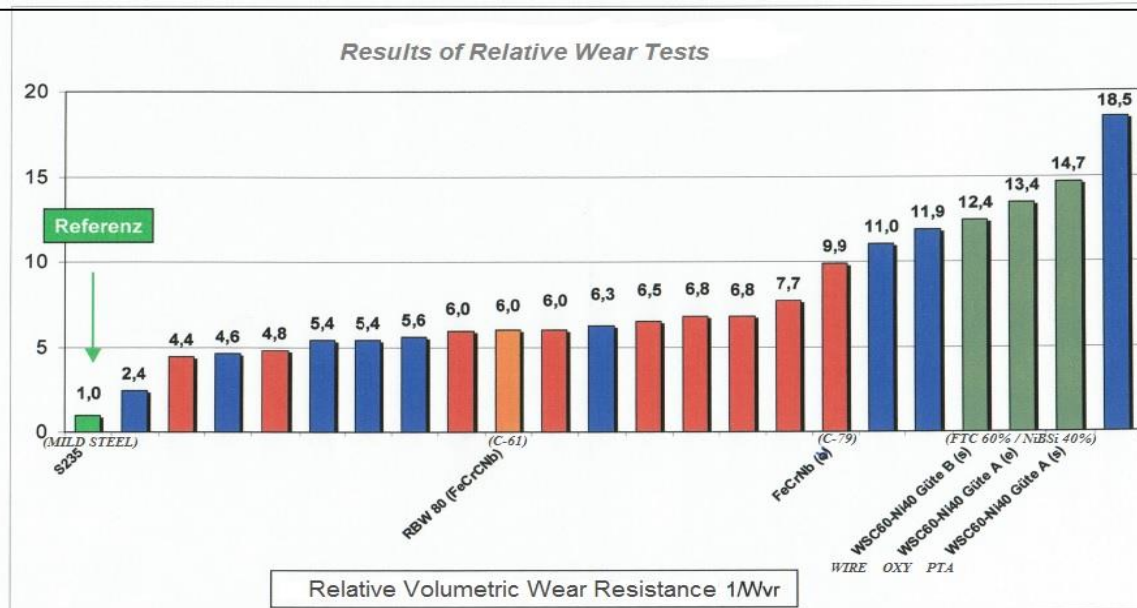
**CORODUR-79 Photomicrograph 1
 Primary Carbides**



**CORODUR-79 Photomicrograph 2
 Secondary Carbides**



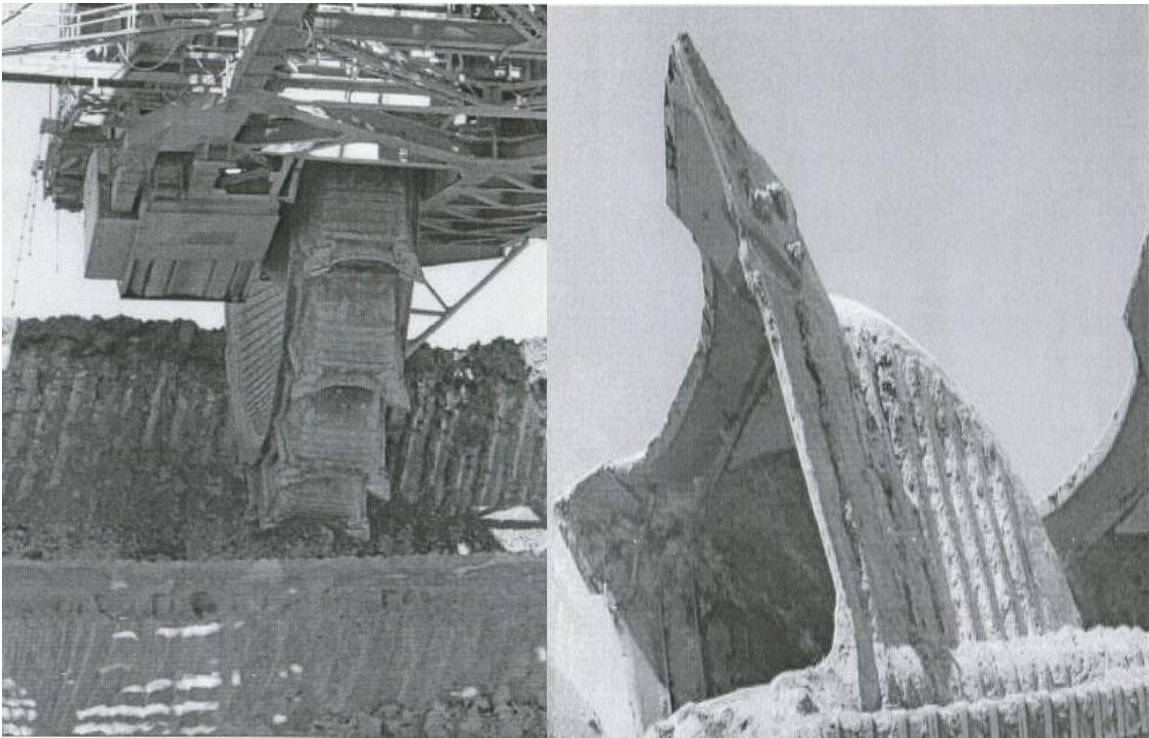
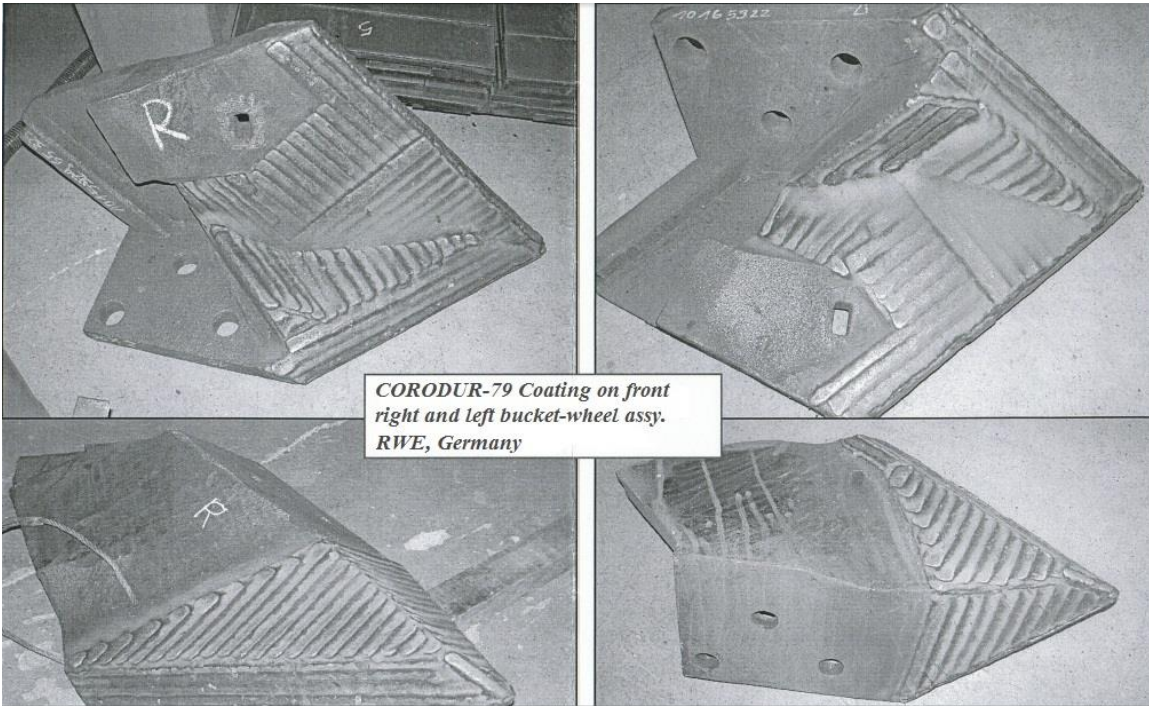
Primary carbides - Ferro-Chrome-Carbide	: Micro-hardness = 1400 HV0.1
Secondary carbides - Niobium Carbide	: Micro-hardness = 2200 HV0.05
Matrix	: Micro-hardness = 800 HV30
Overall performance of Carbides	: 66HRC
Overall performance of Matrix	: 900HV30



Legende:

- = Reference
- = Hard Alloys
- = Hard Composites

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