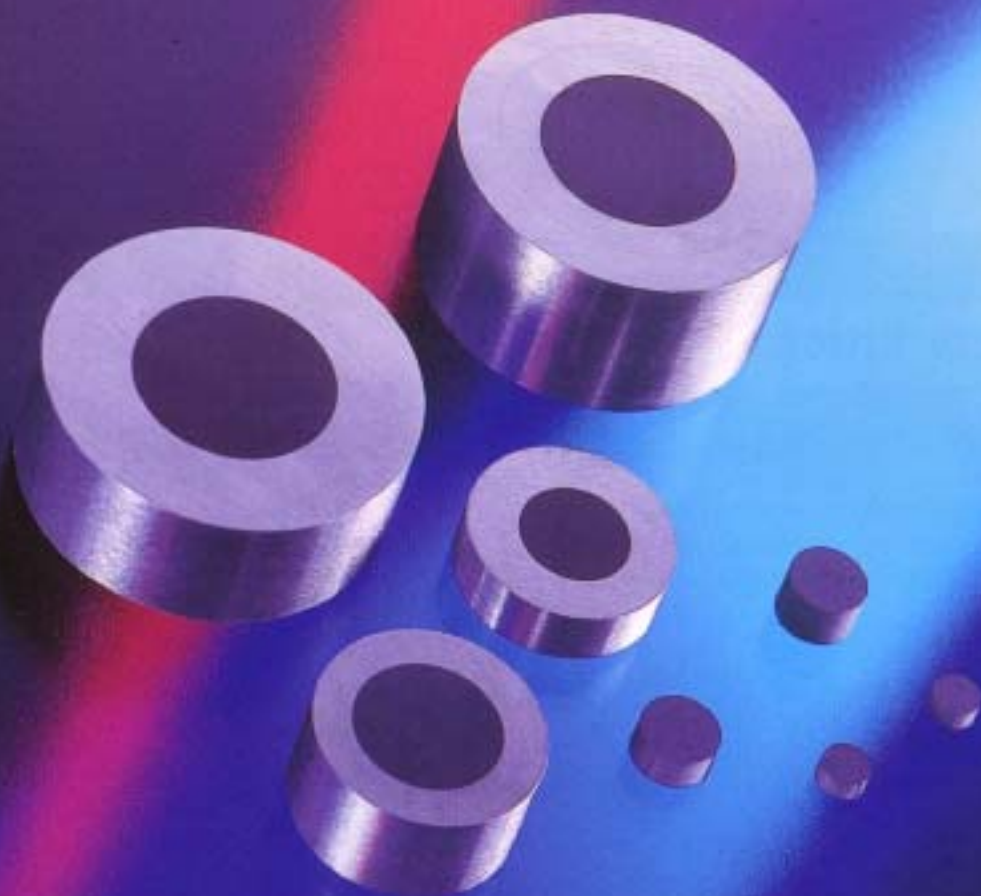


SEI

HIGH DENSITY  
PCD DIE BLANK

**SUMIDIA WD**  
**700/800/900 SERIES**

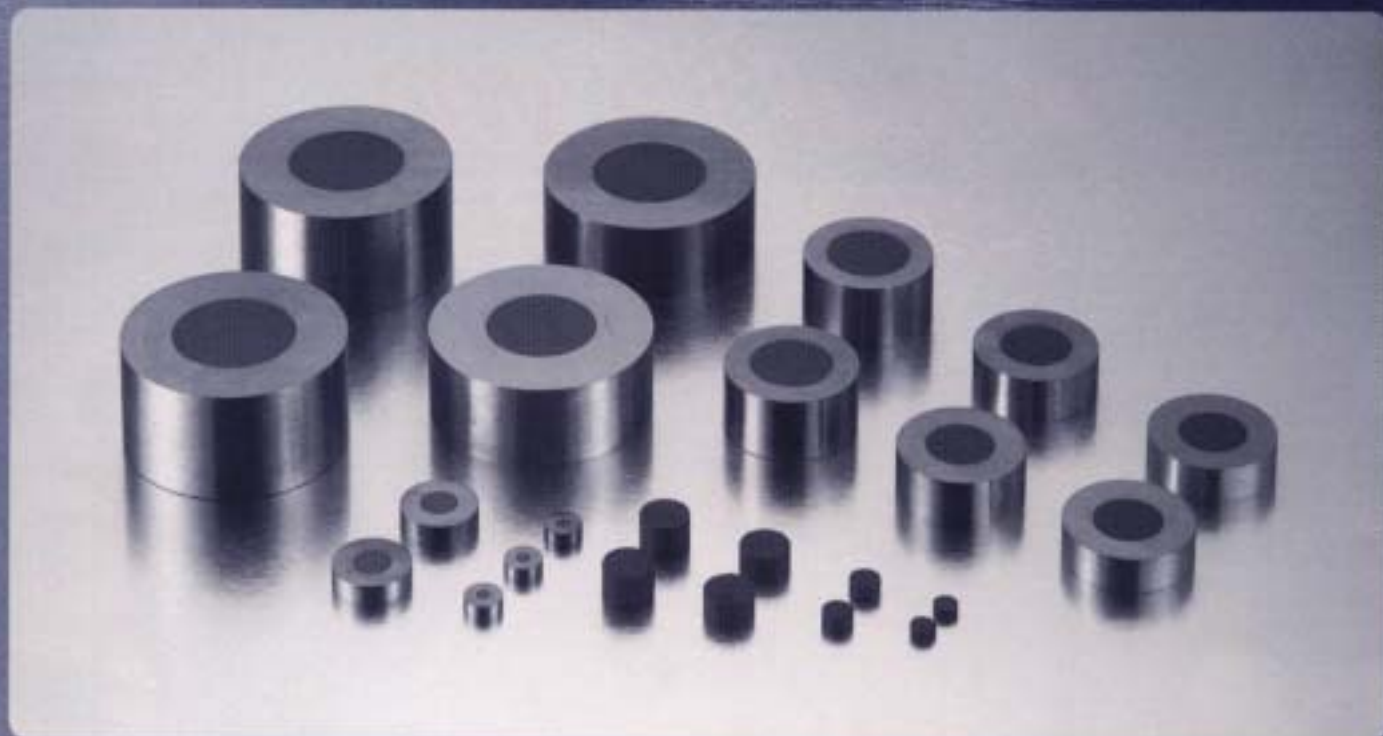
**SUMIDIA WD**



**700/800/900**



SUMITOMO ELECTRIC

**NEW****HIGH DENSITY PCD DIE BLANK****SUMIDIA WD 700/800/**

## Characteristics

### 1 Homogeneous sintered body

The homogeneity of sintered body has been improved largely through our original technology. The diamond content ratio in sintered body is increased and each diamond grain is firmly bonded.

Diamond grain size : 12 $\mu$ m



conventional type (WD230N)



WD930C

Diamond grain size : 5 $\mu$ m (Heat-Resistant type)



competitor's

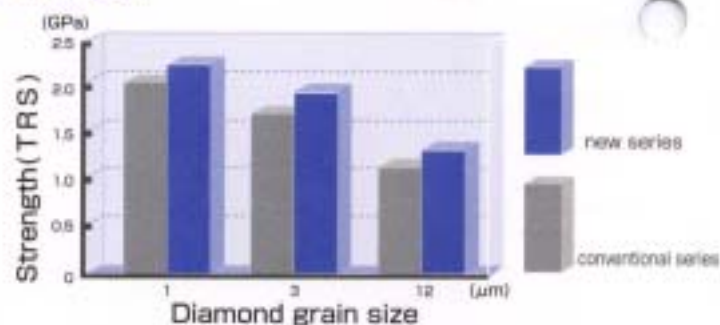


WD815M

### 2 Strength/Wear Resistance

As diamond-to-diamond bonding is improved, strength and wear resistance are superior compared with conventional series. These new series make it possible for longer die life and consistent performance.

#### Strength



#### Wear Resistance



# 900 SERIES

We have recently developed the WD700, 800 and 900 series "high density" wire drawing die blanks. This new series offers superior performance due to higher strength and wear resistance compared with conventional PCD.

The WD 700/800/900 is the latest series of enhanced PCD products from Sumitomo Electric.

## Characteristics of Each Series

### WD700series

The WD700 series are self-supported die blanks. These blanks are suitable for all types of wire drawing applications especially where cost-cutting is required. The WD700 series replaces the WD100 series.



### — Heat-Resistant type — WD800series

Heat resistance in the WD800 series has been improved to withstand temperatures reaching 1200°C. These blanks are especially suited for applications which require high temperature in mounting and need high heat resistance in drawing. The WD800 series replaces the WD100T series.



Heat-Resistant type






### WD900series

The WD900 series, available in coarse, fine and ultra fine grain sizes, are reinforced by a special outer ring. This feature makes it possible to draw not only copper and aluminium wire but high tensile steel wire as well. The WD900 series replaces the WD200, 300 and 400 series.



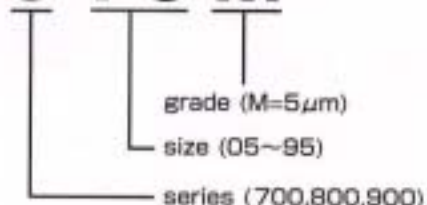
## 3 5 kinds of Grain sizes

The line-up of the WD700, 800 and 900 series is from ultra-fine grade (1 μm) to coarse grade (25 μm). The chart below shows grades that corresponds with grain size.

Grade	F	S	M	C	E
Grain size					
	1 μm	3 μm	5 μm	12 μm	25 μm

Cat. No

# WD815M




## 4 Decrease in processing trouble

In addition to a remarkable improvement in diamond-to-diamond bonding, the outer ring was improved and specifically matched to the new PCD for maximum support. This prevents processing trouble, especially horizontal cracks.

## 5 New size and Expanded series

The new "High Density" series offers additional sizes and grain structure. For example, WD940 (diameter of 9mm and thickness of 7.5mm) and C, M and E grades through out the product line. In the near future, large sizes will be introduced up to 45mm in diameter.

Shape	Cat. No	φd	φD	t
	WD940	9.0	14.5	7.5
	(WD990)	(40.0)	(67.0)	(25.0)
	(WD995)	(45.0)	(67.0)	(27.0)

unit : mm

# SUMIDIA WD 700/800/900 SERIES ITEM

Cat. No	ADOMA* No.	Dimensions (mm)				Grade (Grain size : $\mu\text{m}$ )					Shape	conventional WD		
		$\phi d$	$\phi D$	t	Recom- mended maximum hole size	F	S	M	C	E		Cat. No	Grain size	
						1	3	5	12	25			F	N
WD705	D6	2.5	—	1.0	0.5	○	—	○	○	○		WD105	1	3
WD710	D12	3.2	—	1.5	1.0	○	—	○	○	WD110				
WD715	D15	5.2	—	2.5	1.5	○	—	○	○	WD115				
WD720	D18	5.2	—	3.5	2.0	○	—	○	○	WD120				
WD805	D6	2.5	—	1.0	0.5	○	—	○	○	 Heat-Resistant type	WD105T	1	3	
WD810	D12	3.2	—	1.5	1.0	○	—	○	○		WD110T			
WD815	D15	5.2	—	2.5	1.5	○	—	○	○		WD115T			
WD820	D18	5.2	—	3.5	2.0	○	—	○	○		WD120T			
WD910	D12	1.5	4.0	1.5	0.8	○	○	○	○		WD210	1	3	
WD915	D15	4.0	8.12	2.3	1.8	○	○	○	○		WD215			
WD920	D18	4.0	8.12	2.9	2.3	○	○	○	○		WD220			
WD925	D21	7.0	13.65	4.0	3.5	—	○	○	○		WD225	3	12	
WD930	D24	7.0	13.65	5.3	4.6	—	○	○	○		WD230			
WD940	D27	9.0	14.5	7.5	5.4	—	—	○	○		—	—	—	
WD945	D27	13.0	24.13	9.0	5.8	—	—	○	○		WD351	6	12	
WD950	D30	13.0	24.13	12.0	7.6	—	—	○	○		WD350			

\* American Diamond Die Manufacturers Association

○ : stock item ○ : order item (non-stock item)

## Conventional series

Cat. No	$\phi d$	$\phi D$	t
WD210	1.5	4.0	1.5
WD215	2.3	5.0	2.3
WD220	3.5	7.0	2.9
WD225	5.0	10.0	3.8
WD230	6.4	13.0	5.3
WD351	12.0	24.13	9.0
WD350	12.0	24.13	12.0

Tel                      TeleFax                      Address

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(Chicago)	Sumitomo Electric Carbide Inc.	1-847-635-0044	1-847-635-9335	1001 Business Center Drive, Mt. Prospect, IL 60056-0545, U.S.A.
(Ohio)	Sumitomo Electric Carbide Inc.	1-614-794-9700	1-614-794-9709	15 Bishop Drive Westerville, OH 43081, U.S.A.

EUROPE				
(Germany)	Sumitomo Electric Hartmetall GmbH.	49-2154-49920	49-2154-41072	Siemensring 84, D-47877 Willich, Germany
(France)	Sumitomo Electric Hartmetall GmbH.	33-1-6989-8383	33-1-6086-2316	Parc Technologique 22, rue du Bois Chaland C.E. 2924-LISSES-91029 Evry Cedex, France
(United Kingdom)	Sumitomo Electric Hardmetal Ltd.	44-1844-342081	44-1844-342415	Summerleys Road, Princes Risborough, Buckinghamshire, HP27 9PW, U.K.

ASIA				
(Singapore)	Sumitomo Electric Hardmetal Asia Pacific Pte. Ltd.	65-282-4334	65-280-4334	6 New Industrial Road #03-01/02/03/04, Hoe Huat Industrial Building, 536199, Singapore

Specifications are subject to change without notice.

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