

Radialc[®]

Abrasives

NATIONAL[®]

GRINDING WHEEL CO.



SEGMENTS



Radiac/National

Engineered Solutions for Grinding Needs

Radiac/National manufactures a complete line of abrasive products and segments for the grinding wheel market. Located in Salem, Illinois, they operate four manufacturing facilities—three in the United States and one in Mexico. The Salem plant has over 300,000 square feet dedicated to the manufacturing and marketing of a full range of quality bonded abrasives.



The companies boast 100+ years of manufacturing experience providing high performance vitrified and resin products to the grinding wheel market. Precision is built in—the specialized bonds, abrasives, and structures provide exceptional performance and repeatability.



The unique segment bond formulations allow for improved chip clearance especially when engaged in heavy rough-grinding operations. The key to successful segment grinding is the use of the correct specification for the job and the correct operating procedure.

Radiac/National is committed to maintaining customer satisfaction and provides a capable and highly experienced team of Abrasive Specialists to assist in selecting the correct segment for your grinding operation.



Segment Recommendations and Application Guide

<i>Machine Model</i>	<i>H.P.</i>	<i>Specifications</i>		
		Easy to Grind Material	Difficult to Grind Material	Very Difficult to Grind Premium Applications
18-30, 20-36	25-35	97A24-F800-VOS 97A30-F800-VOS	8A24-F800-VOS 8A30-F800-VOS	7BP30-F800-VOS
22-42	40-50	97A24-G800-VOS 97A30-F800-VOS	8A24-G800-VOS 8A30-F800-VOS	7BP30-F800-VOS
26-48, 32-60	75-150	97A24-H800-VOS 97A30-G800-VOS	8A30-H800-VOS 8A30-G800-VOS	7BP30-G800-VOS
36-60, 42-84, 54-100	75-150	97A24-H800-VOS 97A30-G800-VOS	8A24-H800-VOS 8A23-G800-VOS	7BP30-G800-VOS
60-120, 72-120	200+	97A24-G800-VOS 97A30-G800-VOS	8A29-H800-VOS 8A30-H800-VOS	7BP30-G800-VOS



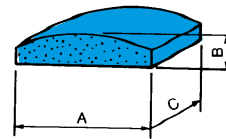
Above are starting options; Use the following to determine optimum specification:

- Use Harder Grade for Smaller Parts.
- Use Harder Grade for Higher HP.
- Use Softer Grade for CDTXL Shape.
- Use Coarser Grit for Softer Steels.
- Use Coarser Grit for Faster Stock Removal

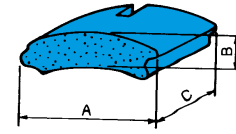
Stock Availability

Style	Dimension	Specification	Qty/Box	Product#
CD B/P 2697	11-1/4 x 2-1/4 x 6	97A24-F800-VOS	5	P354553
		97A24-G800-VOS	5	P051
		97A24-H800-VOS	5	P040
		97A30-F800-VOS	5	P282324
		97A30-G800-VOS	5	P282325
		97A30-H800-VOS	5	P282326
		8A24-F800-VOS	5	P354555
		8A24-G800-VOS	5	P354556
		8A30-E800-VOS	5	P355682
		8A30-F800-VOS	5	P351299
		8A30-G800-VOS	5	P350892
		8A30-H800-VOS	5	P354557
		7BP30-F800-VOS	5	P336422
		7BP30-G800-VOS	5	P339914
		CDXL B/P 26448	11-1/4 x 2-1/4 x 8	97A24-G800-VOS
97A30-G800-VOS	5			P322080
8A24-G800-VOS	5			P355552
8A30-F800-VOS	5			P260384
CDXTL B/P 26306	11-1/4 x 3 x 8	97A24-F800-VOS	5	P354563
		97A30-F800-VOS	5	P282344
		97A30-G800-VOS	5	P282345
		8A24-F800-VOS	5	P354565
		8A30-F800-VOS	5	P354566
		8A30-G800-VOS	5	P354567
		7BP30-F800-VOS	5	P352050
		7BP30-G800-VOS	5	P342470
AA1 B/P 2578	11-5/16 x 2-1/8 x 6	97A30-F800-VOS	5	P282314
		97A30-G800-VOS	5	P282315
		8A24-F800-VOS	5	P354569
		8A30-G800-VOS	5	P354571
NO B/P 1913	5 x 1-1/2 x 6	97A24-F800-VOS	10	P354572
		97A30-G800-VOS	10	P282355
		97A30-H800-VOS	10	P282356
		97A30-I800-VOS	10	P282357
		8A24-F800-VOS	10	P354573
		8A30-E800-VOS	10	P355683
		8A30-F800-VOS	10	P354574
		8A30-G800-VOS	10	P354575
		8A30-H800-VOS	10	P354576
		7BP30-G800-VOS	10	P336197
STG18A B/P 2063	6-3/4 x 1-1/2 x 6	97A24-F800-VOS	10	P354577
		97A30-F800-VOS	10	P354578
		8A24-F800-VOS	10	P354579
		8A30-F800-VOS	10	P354580
RA2 B/P 26401	4-3/16 x 2 x 5-1/2	RA46-H5V8	10	P527971
CP14 B/P 1943	5-5/16 x 1-1/2 x 5	WAA46-H5V8	10	P461504

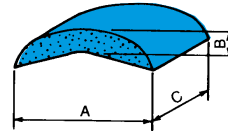
Segment Shapes or Styles



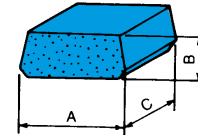
STYLE CD



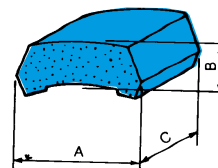
STYLE STG



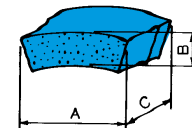
STYLE AA-I



STYLE RA



STYLE NO



STYLE CP

Make Availability

Abrasive	Grit Size	Grade	Structure	Bond
97A, 8A, 9A	24, 30, 36,	E, F, G, H,	800	VOS (Open Structure)
43A, 32A, RAA	46, 60	I, J, K	5, 8	V8 (Low Structure)
RA, 5BP, 7BP				

Features and Benefits

Feature	Advantage	Benefit
Three Tier Stock Offering with pre-engineered Specification for Machine Model & Material	Meets Most Standard Applications	Engineered Product Immediately Available
Expanded Availability	Meets Any Special Need	Customized Product Saves \$ for Special Jobs
Controlled Porosity	Freer Cut/Faster Stock Removal	Faster and Consistent Cycle Times Achieved
Priced Competitively	Improved Cash Flow	Reduced Abrasive/ Grind Cost Per Piece

Trouble Shooting Guide

Segment Acting Too Hard/Burning/Low Stock Removal

- 1.) Increase rate of automatic downfeed.
- 2.) Decrease table rotation speed.
- 3.) Dress more frequently
- 4.) Reduce area of table load (if more than one piece is being ground, or step grind).
- 5.) Check coolant for maximum flow.
- 6.) Use softer segment specification.

Segment Acting Too Soft/Changing Segments Too Frequently

- 1.) Decrease rate of automatic downfeed.
- 2.) Increase table rotation speed.
- 3.) Check for abnormal machine vibration caused by improper mounting of segments or excessive build-up of sludge on inside of segment holder.
- 4.) Use harder segment specification.

Poor Surface Finish

- 1.) Decrease table speed.
- 2.) Slow finish downfeed rate and spark out.
- 3.) If grinding dry, try grinding wet.
- 4.) Check coolant for maximum flow
- 5.) Check coolant for excessive contamination.
- 6.) Use finer grit segment.

Recommendations for Reducing Grinding Costs Per Piece

- Select abrasive type best suited to material being ground.
- Use coarse grit sizes such as 24 or 30 grit whenever possible—use sparkout to obtain required finish.
- Select the hardest grade that will not burn the workpiece or cause machine power overload.
- Select softer grade for general purpose applications or to grind a wide variety of materials.
- Select the highest maximum downfeed that will not burn the workpiece, prematurely break down the segment, or cause machine power overload.

MEMBER



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