

**RESCOBOND AA-22S** is the world standard for abrasion resistant castables. Rescobond AA-22S is a 3000°F (1650°C) high alumina castable with a unique air-setting bond. The air-setting bond is not hygroscopic, even with no heating, unlike conventional phosphate-bond plastics. AA-22S will also bond to other refractory surfaces with minimal preparation, making this product suitable for patching worn refractory surfaces. Other features of AA-22S include high cold crushing strength, very low abrasion loss, and a long storage life. AA-22S is also a single component castable that is mixed only with water to achieve the proper consistency. In addition to having superior physical properties, AA-22S has established itself as the leader in abrasion/erosion resistance. The high alumina content of AA-22S lends itself to having excellent refractoriness for a variety of applications. Applications which Rescobond AA-22S is recognized for include refinery and petro-chemical, cyclone and vessel linings. The storage life of Rescobond AA-22S is excellent; it can be stored for up to 24 months under the proper conditions. AA-22S can be installed by handpacking, pneumatic ramming, gunning, and vibration casting. When the situation involves abrasion, choose the original "abrasion resistant castable", Rescobond AA-22S, the standard to which other materials are compared. AA-22 Brush Mix and AA-22 Caulking Mix are also available.

**R-MAX MP** is a 2300°F (1260°C) multi purpose (MP) abrasion resistant castable which can be handpacked, vibration cast, and gunned. The product's zero-slump and soft, "easy to install" texture results in high handpack installation rates. R-Max MP can be gunned directly into hexmesh for abrasion resistant linings. Other features of R-Max MP include extremely high cold crushing strength and extremely low abrasion loss.

**R-MAX C / R-Max G** are 3200°F (1760°C) low cement, high performance castables that are designed to have a very low abrasion loss and maximized physical properties. R-Max C can be installed by vibration casting, pump casting, and wet shotcreting methods. R-Max G is installed using conventional gunite equipment.

**RESCOCAST 17EC/17EG** are Resco's widely specified standard abrasion resistant monoliths. Rescocast 17EC can be installed using vibration casting. Rescocast 17EG is installed by gunning using conventional gunite equipment. Typical applications for these products include U-Bends, Y-Sections, overhead lines, and other catalyst transfer lines. Rescocast 17EC has a density of 130 pcf and an abrasion loss of less than 10 cc. The ease of placement using vibration and extended working time has made Rescocast 17EC widely specified for refinery applications. Rescocast 17EG has a gunned density of 128 pcf and an abrasion loss of less than 14cc. This product features low rebounds and uniform flow through the gunite equipment.

**RESCOCAST 17EPC** is the pumpable version of Rescocast 17EC. This product can be installed by vibration casting, pump-casting, and wet shotcrete methods. Rescocast 17EPC features good working time, a cast density of 127 pcf, and abrasion loss of less than 14cc. Typical applications include U-Bends, Y-Sections, overhead lines, and other catalyst transfer lines where abrasion is a concern.

**RESCOCAST 17AC/17AG** are high purity, 95% alumina, cement-bonded monoliths with a maximum service temperature of 3400°F (1870°C). The trace amounts of iron oxide and silica contents (<0.1% each) make it suitable for application in hydrogen and carbon monoxide-rich, reducing atmospheres. Rescocast 17AC is installed by vibration casting. Rescocast 17AG is installed by gunning using conventional gunite equipment.

**RESCOCAST 88VC/ 88HP** were designed to meet rigid lining specifications for critical wear areas in high-erosion applications. The physical test results define the product name...an abrasion loss of less than 8 cc and a thermal conductivity of less than 8. Rescocast 88VC is installed by vibration casting (VC) only. Rescocast 88HP is formulated by handpacking (HP) only. Other features of these products include a maximum service temperature of 2750°F (1510°C), a bulk density of 134 pcf, and cold crushing strength of 10,000 psi.

**RESCOCAST 17EMC/17EMG** are unique, thermal shock resistant, cement-bonded monoliths with a maximum service temperature of 2500F (1370°C). These monoliths feature low thermal conductivity, excellent resistance to thermal shock, a cast density of 113 pcf for 17EMC (gunned density of 112 pcf for 17EMG), and an abrasion loss of less than 20 cc. Rescocast 17EMC is installed by vibration casting. Rescocast 17EMG is installed by gunning using conventional gunite equipment.

**RESCOCAST 110C/ 110G** have the unique combination of high mechanical strength along with impressive insulating value. These products feature a maximum service temperature of 2400°F (1315°C), bulk densities of 110 pcf, crushing strengths greater than 5000 psi, K Factor ranging from 5 to 6, and abrasion loss less than 12 cc. Rescocast 110C installed by vibration casting. Rescocast 110G is installed by gunning using conventional gunite equipment.

*This brochure features our major products. For the latest brand information and data, please refer to our website, [www.rescoproduct.com](http://www.rescoproduct.com)*

**RESCOBOND AA-22S**  
**R-MAX MP**  
**R-MAX C/G**  
**RESCOCAST 17EC**  
**RESCOCAST 17EG**  
**RESCOCAST 17EPC**  
**RESCOCAST 17AC**  
**RESCOCAST 17AG**  
**RESCOCAST 88VC**  
**RESCOCAST 88HP**  
**RESCOCAST 17EMC**  
**RESCOCAST 17EMG**  
**RESCOCAST 110C**  
**RESCOCAST 110G**  
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**RESCOCAST 17EPC**  
**RESCOCAST 17AC**  
**RESCOCAST 17AG**  
**RESCOCAST 88VC**

**EXTREME  
SERVICE  
CASTABLES**



# Extreme Service Products

## Cast Data

PRODUCT			RESCOBOND AA-22S		R-MAX MP		RESCOCAST 17 EC		RESCOCAST 17 EPC		RESCOCAST 17 AC		RESCOCAST 88VC		RESCOCAST 17EMC		RESCOCAST 110C	
	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
Max. Service Temp.	°F	°C	3000	1650	2400	1260	2750	1510	2750	1510	3400	1870	2750	1510	2500	1370	2400	1315
Bulk Density (lb/Ft <sup>3</sup> :kg/m <sup>3</sup> )	220°F	110°C	158-170	2,528-2,720	173	2,768	137	2,192	133	2,128	180	2,880	140	2,240	118	1,888	117	1,870
	1500°F	815°C	154-167	2,464-2,672	170	2,720	130	2,083	127	2,032	174	2,784	134	2,144	113	1,808	110	1,760
Cold Crushing Strength (lb/in <sup>2</sup> : kg/cm <sup>2</sup> )	1000°F	540°C	12,000-20,000	840-1,400	---	---	---	---	---	---	9,000-12,000	630-840	10,000-14,000	700-980	5,000-7,500	385-525	---	---
	1500°F	815°C	12,000-20,000	840-1,400	20,000-25,000	1,400-1,750	8,000-11,000	560-770	6,500-9,000	455-630	8,000-12,000	560-840	10,000-14,000	700-980	5,000-7,000	385-490	5,000-9,000	350-630
Modulus of Rupture (lb/in <sup>2</sup> : kg/cm <sup>2</sup> )	1000°F	540°C	1,800-2,400	126-168	---	---	---	---	1,200-1,800	84-126	1,600-2,000	112-140	1,600-2,000	112-140	800-1,000	56-70	---	---
	1500°F	815°C	1,800-2,400	126-168	4,000-7,000	280-490	1,400-1,800	98-126	1,100-1,500	77-105	1,200-1,800	84-126	1,600-2,000	112-140	700-1,000	49-70	800-1,200	56-84
Thermal Conductivity (K-Factor) (Ft <sup>2</sup> ,°F,in.: W/m, °K)	1000°F	540°C	11.5		12.1		7.4		6.8		10.8		8.0		5.0		6.0	
	1500°F	815°C	12.5		11.2		8.0		6.9		9.8		8.4		5.6		5.4	
	2000°F	1095°C	14.0		--		8.4		7.7		9.7		8.5		6.0		---	
Erosion Loss	cc, 1500°F (815°C)		<4.0		<4.0		<10.0		<14.0		<12.0		<8.0		<20.0		<12.0	
Permanent Linear Change	%, 1500°F (815°C)		0.0 to -0.3		-0.2 to -0.4		-0.1 to -0.3		-0.1 to -0.3		-0.1 to -0.3		-0.1 to -0.3		-0.1 to -0.3		0.0 to -0.3	

PRODUCT	Gunited Data												Hand Pack Data	
			R-MAX G		RESCOCAST 17EG		RESCOCAST 17AG		RESCOCAST 17EMG		RESCOCAST 110G		RESCOCAST 88HP	
	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
Max. Service Temp.	°F	°C	3200	1760	2750	1510	3400	1870	2500	1370	2400	1315	2750	1510
Bulk Density (lb/Ft <sup>3</sup> :kg/m <sup>3</sup> )	220°F	110°C	164	2,627	135	2,160	174	2,784	117	1,874	117	1,874	140	2,270
	1500°F	815°C	159	2,544	128	2,048	168	2,688	112	1,794	110	1,762	134	2,144
Cold Crushing Strength (lb/in <sup>2</sup> : kg/cm <sup>2</sup> )	1000°F	540°C	---	---	5,000-7,500	350-525	5,000-8,000	350-560	3,500-6,500	245-455	---	---	10,000-14,000	700-980
	1500°F	815°C	10,000-14,000	700-980	5,000-7,500	350-525	5,000-8,000	350-560	3,000-6,000	210-420	5,000-9,000	350-630	10,000-14,000	700-980
Modulus of Rupture (lb/in <sup>2</sup> : kg/cm <sup>2</sup> )	1000°F	540°C	---	---	900-1,200	63-84	800-1,400	56-98	800-1,000	56-70	---	---	---	---
	1500°F	815°C	1,800-2,300	126-161	900-1,200	63-84	1,000-1,400	70-98	700-1,000	49-70	800-1,200	56-84	1,600-2,000	112-140
Thermal Conductivity (K-Factor) (Ft <sup>2</sup> ,°F,in.: W/m, °K)	1000°F	540°C	11.0	1.59	6.5	0.94	10.8	1.56	5.0	0.72	6.0	0.86	7.3	1.05
	1500°F	815°C	10.0	1.44	6.8	0.98	9.8	1.41	5.6	0.80	5.4	0.78	7.4	1.07
	2000°F	1095°C	10.0	1.44	6.9	0.99	9.7	1.40	6.0	0.87	---	---	7.5	1.09
Erosion Loss	cc, 1500°F (815°C)		<5.0		<14.0		<15.0		<20.0		<14.0		<8.0	
Permanent Linear Change	%, 1500°F (815°C)		-0.1 to -0.4		-0.1 to -0.3		-0.1 to -0.4		-0.1 to -0.3		0.0 to -0.3		-0.1 to -0.3	

Cast data shown are average results of control tests based on sample formation using ball-in-hand consistency methods, ASTM C-860-00 "Standard Practices for Determining and measuring Consistency of Refractory Concretes." The results are subject to normal variations in manufacturing, testing, and installation procedures.

Gunit data shown are average results following sample preparation using the guidelines set forth in ASTM C-903-98, "Standard Practices for Preparing Refractory by Cold Gunning." The results are subject to normal variations in manufacturing, testing, and installation procedure.

Contact your local sales representative or check RESCO's website, [www.rescoproducts.com](http://www.rescoproducts.com) for the latest technical data.