





# RANDOM PACKING COMPETITIVE & EFFECTIVE SOLUTIONS



## TRIPACKS | SPHERICAL STYLE PACKING 919-607-6765 www.controlledairdesign.com



Tripacks is a hollow spherical column packing constructed of a unique network of ribs, struts, and drop rods. Plastic Tripacks are distinguished from other packing by its superior geometric shape. Their spherical shape allows each element to roll into the "packed position" without forming void areas common to irregular shaped packing or those with excessive pins and appurtenances. With Tripacks, there is no need for allowances for settling and nesting is virtually impossible. The round Tripacks offers reliable and predictable loading of your tower which means reliable and predictable performance. In addition to the superior geometric shape, an active surface area is vital to mass transfer.

The unique network of ribs, struts and drip rods have proven to give the Tripacks a distinct advantage in providing excellent wetting qualities and maintaining liquid distribution through the packed bed. Some suppliers claim more surface area, but surface area alone is not an indication of performance. Excessive surface area can impede proper gas and liquid contact and always results in higher pressure drop which increases horsepower requirements and operating costs. The Tripacks offers an optimum surface area to open area ratio which yields excellent mass transfer efficiency and reduced operating costs.

Tripacks are available in three sizes, 1", 2", and 3.5". We use only prime, virgin resins and no recycled materi-als are ever used. Almost any injection moldable resin is available; the most common include PP, PE, PP-G, CPVC, Noryl, Kynar®, Halar®, Teflon® and many more. Tripacks made of Polypropylene (PP) have been certified by NSF to Standard 61 for water treatment plant applications.

MATERIAL	SERVICE TEMP. (°F)	1" DIAMETER	2" DIAMETER	3 1/2" DIAMETER
Polypropylene (PP)	180	901010	901020	901040
Polyethylene (PE)	160	902010	902020	902040
Polypropylene Glass Filled (PP-G)	210-250*	901010GF	901020GF	901040GF
Noryl (PPO)	230	951010	951020	951040
Polyvinylchloride (PVC)	140	905010	905020	905040
CPVC	200	903010	903020	903040
Kynar (PVDF)	280	904010	904020	904040
TopEx (LCP)		953010	953020	953040
Tefzel (ETFE)	350	906010	906020	906040
Teflon (PFA)	400	915010	915020	915040
Halar (ECTFE)	290	907010	907020	907040

MASS TRANSFER DATA						
ABSORPTION	G (LB/	L (LB/	TEMP.	HTU-INCHES		
SYSTEM	HR-FT2)	HR-FT2)	(°F)	1	2	3
HC1-H20	1792	2048	77	7.0	10.6	12.0
HC1 -NaOH	1567	2048	98	6.1	8.8	10.0
C12-NaOH	1229	2202	122	9.9	14.5	16.0
NO2-Na2S+NaOH	717	1127	68	32.0	49.2	54.0
NH3-H2S04	434	1024	68	4.1	6.0	7.0
NH3-H20	512	1024	68	5.6	8.4	10.0
NH3-H20	512	4096	68	3.6	5.4	6.2
SO2-NaOH	1946	4096	140	8.1	12.0	14.0
HF-H20	1844	3072	77	4.6	6.9	8.1
H2S-NaOH	1229	1331	68	13.0	19.4	22.0

PHYSICAL PROPERTIES					
SIZE (IN.)	1	2	3 1/2		
GEOMETRIC SURFACE AREA (FT2/FT3)	85	48	38		
PACKING FACTOR (1/FT.)	28	16	12		
VOID SPACE (%)	90	93	95		
WEIGHT (LB/FT3)	6.5	4.2	3.3		
NUMBER O PIECES/FT3	2,300	380	48		

#### Notes:

- Other plastics are available on request.
- \* Depending on glass content
- \*\* At atm, air/water at max. recommended depth)



The high capacity Kemlox plastic saddle offers distinct advantages over conventional saddle design. The serrated edges promote high mass trasfer rates through effective liquid surface renewal. The serrated edges of the Kemlox saddle reduce bed settling during operation and assist to maintain packing free space and create lower column pressure drop. The Kemlox Plastic saddles are available in 1", 2" and 3" sizes. They are available in 5 and 10 cubic foot cardboard boxes. The proper installation is by dry dumping with reasonable care. Kem-lox saddles made of Polypropylene (PP) have been certified by NSF to Standard 61 for water treatment plant applications.

### **Applications:**

Air Pollution • Scrubbing • Liquid -liquid contact • Absorption, distillation, extraction, stripping, humidification, dehumidification, decarbonating, de-aerating • Biological filtration

MATERIAL	1″	2″	3″	MAX.CONTINUOUS OPERATING TEMP (°F)	SPECIFIC GRAVITY
General Grade Polypropylene	918010	918020	918030	220	0.91
Polypropylene (10% Glass reinforced)	919010	919020	919030	260	0.97
High Density Polyethylene	920010	920020	920030	212	0.95
Low Density Polyethylene	9201010	9201020	9201030	190	0.92
PVC	921010	921020	921030	150	1.46
CPVC	922010	922020	922030	185	1.55
PVDF	923010	923020	923030	290	1.77

PHYSICAL PROPERTIES					
Nominal Size	]"	2"	3"		
No. pcs/m3	57500	6400	1400		
No. pcs/ft3	1630	190	42		
Wt. *kg/m3	95	60	48		
Wt. *lb/ft3	5.85	3.75	3.00		
Void Space %	90	93	94		
Surface Area (ft2/ft3)	73	33	27		

## KEM-PACK | RING STYLE PACKING



The Kem-Pack Plastic ring is a robust ring featuring an open wall construction which maintains even liquid distribution. Reinforced struts provide additional surface area for gas-liquid contact and support the outer ring. The Kem-Pack Plastic rings are available in 1", 2" and 3 1/2" sizes. They are available in 5 and 10 cubic feet cardboard boxes. The proper installation is by dry dumping with reasonable care. Kem-pack rings made of Polypropylene (PP) have been certified by NSF to Standard 61 for water treatment plant applications.

#### **Applications:**

Air Pollution • Scrubbing • Liquid -liquid contact • Absorption, distillation, extraction, stripping, humidification, dehumidification, decarbonating, de-aerating • Biological filtration

MATERIAL	1″	2″	3 1/2"	MAX.CONTINUOUS OPERATING TEMP (°F)	SPECIFIC GRAVITY
General Grade Polypropylene	968010	968020	968035	220	0.91
Polypropylene (10% Glass reinforced)	969010	969020	969035	260	0.97
High Density Polyethylene	970010	970020	970035	212	0.95
Low Density Polyethylene	97011010	97011020	97011035	190	0.92
PVC	971010	971020	971035	150	1.46
CPVC	972010	972020	972035	185	1.55
PVDF	973010	973020	973035	290	1.77

PHYSICAL PROPERTIES						
Nominal Size	1"	2"	3 1/2"			
No. pcs/m3	50500	6200	1200			
No. pcs/ft3	1430	175	33			
Wt. *kg/m3	70	62	55			
Wt. *lb/ft3	4.40	3.85	3.45			
Void Space %	90	92	93			
Surface Area (ft2/ft3)	67	38	27			

<sup>\*</sup> based on Polypropylene