



## » SELECTION GUIDE

# reSound™ REC Recycled Content Thermoplastic Elastomers Post-industrial and post-consumer recycled TPEs

To help brands reach their sustainability goals, reSound™ REC post-industrial recycled (PIR) and post-consumer recycled (PCR) TPE formulations utilize 9–83% recycled content. reSound REC TPEs can be overmolded onto polypropylene (PP), polycarbonate (PC), acrylonitrile butadiene styrene (ABS) and PC/ABS blends, and are suitable for injection molding.

PCR grades are formulated with different types of recycled content: ocean plastics; food packaging from a variety of sources (including material that received a

No Objection Letter from the U.S. FDA); oil; or polyvinyl butyral (PVB) from windshields and laminated building glass supplied by Shark Solutions.

Formulated for the consumer and transportation markets, reSound recycled content TPE grades can be used in applications such as personal care products, lawn and garden tools, outdoor goods, office supplies, footwear, houseware durables, consumer electronics, and automotive interior and under-the-hood components.



## NORTH AMERICA GRADES

|                                       | reSound™ REC<br>VX2800-0001<br>I 65A Natural        | reSound™ REC<br>VX2800-0001<br>I 65A Black          | reSound™ REC<br>VX2800-0002<br>I 65A Black | reSound™ REC<br>VX0100-0001<br>AR I 80A Black |
|---------------------------------------|---|---|--|---|
| Recycled Content                      | PIR   | PIR   | PIR  | PIR   |
| Recycled Content, %                   | 25%   | 25%   | 40%  | 30%   |
| Recycled Source                       | Carpet Backing,<br>Nonwovens, Films,<br>Super Sacks | Carpet Backing,<br>Nonwovens, Films,<br>Super Sacks | Proprietary Blend                          | Proprietary Blend                             |
| Hardness, Shore A                     | 65  | 65  | 65   | 80  |
| Color                                 | Natural   | Black   | Black                                      | Black   |
| Specific Gravity                      | 0.88  | 0.89  | 0.88                                       | 1.05  |
| Tensile Strength, PSI                 | 784   | 788   | 1023                                       | 1400  |
| Elongation at Break, %                | 687   | 662   | 673  | 700   |
| Compression Set<br>@ Room Temperature | 29  | 27  | 30   | -   |
| OM Substrate                          | PP  | PP  | PP   | PC, ABS,<br>PC/ABS                            |
| Processing                            | IM or OM  | IM or OM  | IM or OM                                   | IM or OM                                      |
| Agency Rating                         | -   | -   | -  | -   |

## NORTH AMERICA GRADES

|                                       | reSound™ REC<br>VX2800-9003<br>C 47A Natural | reSound™ REC<br>VX2800-9004<br>C 54A Natural | reSound™ REC<br>VX2800-0001<br>C 65A Black | reSound™ REC<br>VX2800-0003<br>C 65 Gray | reSound™ REC<br>OF 7310-80             | reSound™ REC<br>OF 7310-90             |
|---------------------------------------|--|--|--|--|--|--|
| Recycled Content                      | PCR  | PCR  | PCR  | PCR/PIR Blend                            | PCR/PIR Blend                          | PCR/PIR Blend                          |
| Recycled Content, %                   | 25%  | 25%  | 25%  | 25%                                      | 35%                                    | 45%                                    |
| Recycled Source                       | PVB  | PVB  | Ocean<br>Plastics                          | Food<br>Packaging                        | Food<br>Packaging                      | Food<br>Packaging                      |
| Hardness, Shore A                     | 47   | 54   | 65   | 65                                       | 80                                     | 90                                     |
| Color                                 | Natural                                      | Natural                                      | Black                                      | Gray                                     | Black/Natural (Gray)                   | Black/Natural (Gray)                   |
| Specific Gravity                      | 0.94   | 0.95   | 0.89                                       | 0.88                                     | 0.9                                    | 0.91                                   |
| Tensile Strength, PSI                 | 250  | 311  | 900  | 831                                      | 1120                                   | 1590                                   |
| Elongation at Break, %                | 585  | 581  | 670  | 620                                      | 570                                    | 520                                    |
| Compression Set<br>@ Room Temperature | -  | -  | 25   | 26                                       | 32                                     | 37                                     |
| OM Substrate                          | PP   | PP   | PP   | PP                                       | PP                                     | PP                                     |
| Processing                            | IM or OM                                     | IM or OM                                     | IM or OM                                   | IM or OM                                 | IM                                     | IM                                     |
| Agency Rating                         | -  | -  | -  | Application<br>Specific FDA              | -                                      | -                                      |
| Automotive Testing*                   | -  | -  | -  | -  | VOC & FOG (VDA 278),<br>Odor (VDA 270) | VOC & FOG (VDA 278),<br>Odor (VDA 270) |

\*Additional testing can be performed to confirm specific customer requirements.



## EUROPE GRADES

|                                       | reSound™ REC<br>VX7900-5001 C I 30A<br>Natural | reSound™ REC<br>VX7900-5001 C I 50A<br>Natural | reSound™ REC<br>VX7900-5001 C I 70A<br>Natural | reSound™ REC<br>VX2800-5032 C 47A<br>Natural | reSound™ REC<br>VX2800-5033 C 54A<br>Natural |
|---------------------------------------|--|--|--|--|--|
| Recycled Content                      | PIR/PCR Blend                                  | PIR/PCR Blend                                  | PIR/PCR Blend                                  | PCR  | PCR  |
| Recycled Content, %                   | 81%  | 81%  | 83%  | 61%  | 61%  |
| PIR Recycled Source                   | Proprietary Blend                              | Proprietary Blend                              | Proprietary Blend                              | -  | -  |
| PCR Recycled Source                   | Oil/Filler                                     | Oil/Filler                                     | Oil/Filler                                     | PVB  | PVB  |
| Hardness, Shore A                     | 30   | 50   | 70   | 47   | 54   |
| Color                                 | Natural  | Natural  | Natural  | Natural                                      | Natural                                      |
| Specific Gravity                      | 1.14   | 1.16   | 1.16   | 0.96   | 0.96   |
| Tensile Strength, MPa                 | 2.39   | 3.23   | 3.35   | 1.80   | 2.00   |
| Elongation at Break, %                | 796  | 654  | 515  | 766  | 682  |
| Compression Set<br>@ Room Temperature | 16   | 24   | 37   | 28   | 29   |
| OM Substrate                          | PP   | PP   | PP   | PP   | PP   |
| Processing                            | IM or OM                                       | IM or OM                                       | IM or OM                                       | IM or OM                                     | IM or OM                                     |



## ASIA GRADES - PIR

|                        | reSound™ REC<br>VX3120-801<br>I 65A Natural | reSound™ REC<br>VX3120-802<br>I 65A Natural | reSound™ REC<br>VX3120-803<br>I 65A Natural |
|------------------------|---|---|---|
| Recycled Content       | PIR   | PIR   | PIR   |
| Recycled Content, %    | 20%   | 40%   | 60%   |
| Recycled Source        | Textile Industry                            | Textile Industry                            | Textile Industry                            |
| Hardness, Shore A      | 67  | 68  | 68  |
| Color                  | Natural                                     | Natural                                     | Natural                                     |
| Specific Gravity       | 1.11  | 1.10  | 1.11  |
| Tensile Strength, PSI  | 1450  | 1229  | 1151  |
| Elongation at Break, % | 752   | 709   | 653   |
| OM Substrate           | PC, ABS,<br>PC/ABS                          | PC, ABS,<br>PC/ABS                          | PC, ABS,<br>PC/ABS                          |
| Processing             | IM or OM                                    | IM or OM                                    | IM or OM                                    |



**ASIA GRADES - PCR**

|                        | reSound™ REC DY 7810-801 C 30A Natural | reSound™ REC DY 7810-801 C 40A Natural | reSound™ REC DY 7810-801 C 50A Natural | reSound™ REC DY 7810-801 C 60A Natural | reSound™ REC DY 7810-801 C 70A Natural | reSound™ REC DY 7810-801 C 80A Natural | reSound™ REC DY 7810-801 C 90A Natural | reSound™ REC DY 7820-801 C 30A Natural | reSound™ REC DY 7820-801 C 40A Natural | reSound™ REC DY 7820-801 C 50A Natural | reSound™ REC DY 7820-801 C 60A Natural | reSound™ REC DY 7820-801 C 70A Natural | reSound™ REC DY 7820-801 C 80A Natural | reSound™ REC DY 7820-801 C 90A Natural | reSound™ REC 3630-801C 40N | reSound™ REC 3630-801C 50N | reSound™ REC 3630-801C 60N | reSound™ REC 7850-90N FR |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------------------|----------------------------|----------------------------|--------------------------|
| Recycled Content       | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                                    | PCR                        | PCR                        | PCR                        | PCR                      |
| Recycled Content, %    | 9%                                     | 12%                                    | 15%                                    | 21%                                    | 23%                                    | 30%                                    | 39%                                    | 60%                                    | 60%                                    | 60%                                    | 60%                                    | 60%                                    | 60%                                    | 60%                                    | 45%                        | 45%                        | 45%                        | 32%                      |
| Recycled Source        | Food Packaging                         | Food Packaging                         | Food Packaging                         | Food Packaging                         | Food Packaging                         | Food Packaging                         | Food Packaging                         | Food Packaging, Oil                    | Food Packaging, Oil                    | Food Packaging, Oil                    | Food Packaging, Oil                    | Food Packaging, Oil                    | Food Packaging, Oil                    | Food Packaging, Oil                    | Food Packaging, Oil        | Food Packaging, Oil        | Food Packaging, Oil        | Food Packaging           |
| Hardness, Shore A      | 30                                     | 40                                     | 50                                     | 60                                     | 70                                     | 80                                     | 90                                     | 30                                     | 40                                     | 50                                     | 60                                     | 70                                     | 80                                     | 90                                     | 40                         | 49                         | 58                         | 85                       |
| Color                  | Natural                                | Natural                                | Natural                                | Natural                                | Natural                                | Natural                                | Natural                                | Natural                                | Natural                                | Natural                                | Natural                                | Natural                                | Natural                                | Natural                                | Natural                    | Natural                    | Natural                    | Natural                  |
| Specific Gravity       | 0.88                                   | 0.89                                   | 0.89                                   | 0.88                                   | 0.88                                   | 0.89                                   | 0.89                                   | 0.95                                   | 0.94                                   | 0.97                                   | 0.97                                   | 0.99                                   | 1.01                                   | 1.02                                   | 0.90                       | 0.90                       | 0.90                       | 1.04                     |
| Tensile Strength, PSI  | 678                                    | 889                                    | 939                                    | 964                                    | 1057                                   | 1328                                   | 1619                                   | 663                                    | 804                                    | 830                                    | 859                                    | 844                                    | 1007                                   | 1279                                   | 830                        | 965                        | 985                        | 1250                     |
| Elongation at Break, % | >1000                                  | 983                                    | 893                                    | 750                                    | 726                                    | 699                                    | 599                                    | 1028                                   | 948                                    | 880                                    | 807                                    | 681                                    | 642                                    | 640                                    | 700                        | 700                        | 650                        | 310                      |
| OM Substrate           | PP                                     | PP                                     | PP                                     | PP                                     | PP                                     | PP                                     | PP                                     | PP                                     | PP                                     | PP                                     | PP                                     | PP                                     | PP                                     | PP                                     | PC, ABS, PC/ABS            | PC, ABS, PC/ABS            | PC, ABS, PC/ABS            | -                        |
| Processing             | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                               | IM or OM                   | IM or OM                   | IM or OM                   | EM                       |



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