



| PRESSURE (MPa) | | 0.3 | | | | 0.6 | | | | 0.9 | | | | 1.2 | | | | 1.6 | | | | 1.8 | | | | 2.0 | | | | 2.5 | | | |
|----------------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 90 | 45 | 22.5 | 11.25 | 90 | 45 | 22.5 | 11.25 | 90 | 45 | 22.5 | 11.25 | 90 | 45 | 22.5 | 11.25 | 90 | 45 | 22.5 | 11.25 | 90 | 45 | 22.5 | 11.25 | 90 | 45 | 22.5 | 11.25 | | | | |
| 50 | L | 0.528 | 0.427 | 0.358 | 0.351 | 0.567 | 0.430 | 0.325 | 0.268 | 0.568 | 0.572 | 0.437 | 0.364 | 0.710 | 0.511 | 0.545 | 0.454 | 0.700 | 0.649 | 0.461 | 0.348 | 0.774 | 0.539 | 0.539 | 0.383 | 0.847 | 0.589 | 0.559 | 0.418 | 1.032 | 0.717 | 0.487 | 0.510 |
| | X | 0.225 | 0.184 | 0.143 | 0.102 | 0.266 | 0.225 | 0.184 | 0.143 | 0.307 | 0.225 | 0.184 | 0.143 | 0.307 | 0.266 | 0.184 | 0.143 | 0.348 | 0.266 | 0.225 | 0.184 | 0.348 | 0.307 | 0.307 | 0.184 | 0.348 | 0.307 | 0.225 | 0.184 | 0.348 | 0.307 | 0.266 | 0.184 |
| | Y | 0.275 | 0.225 | 0.175 | 0.125 | 0.325 | 0.275 | 0.225 | 0.175 | 0.375 | 0.275 | 0.225 | 0.175 | 0.375 | 0.325 | 0.225 | 0.175 | 0.425 | 0.325 | 0.275 | 0.225 | 0.425 | 0.375 | 0.375 | 0.225 | 0.425 | 0.375 | 0.275 | 0.225 | 0.425 | 0.375 | 0.325 | 0.225 |
| 75 | L | 0.598 | 0.590 | 0.441 | 0.356 | 0.705 | 0.639 | 0.450 | 0.330 | 0.939 | 0.648 | 0.599 | 0.441 | 1.174 | 0.635 | 0.545 | 0.552 | 1.197 | 0.804 | 0.689 | 0.478 | 1.323 | 0.890 | 0.890 | 0.528 | 1.450 | 0.974 | 0.633 | 0.578 | 1.452 | 1.186 | 0.604 | 0.510 |
| | X | 0.317 | 0.235 | 0.194 | 0.153 | 0.358 | 0.276 | 0.235 | 0.194 | 0.358 | 0.317 | 0.235 | 0.194 | 0.358 | 0.358 | 0.276 | 0.194 | 0.399 | 0.358 | 0.276 | 0.235 | 0.399 | 0.358 | 0.358 | 0.235 | 0.399 | 0.358 | 0.317 | 0.235 | 0.440 | 0.358 | 0.358 | 0.276 |
| | Y | 0.388 | 0.287 | 0.237 | 0.187 | 0.438 | 0.337 | 0.287 | 0.237 | 0.438 | 0.388 | 0.287 | 0.237 | 0.438 | 0.438 | 0.337 | 0.237 | 0.488 | 0.438 | 0.337 | 0.287 | 0.488 | 0.438 | 0.438 | 0.287 | 0.488 | 0.438 | 0.338 | 0.287 | 0.538 | 0.438 | 0.438 | 0.337 |
| 90 - 110 | L | 0.789 | 0.706 | 0.489 | 0.354 | 1.183 | 0.641 | 0.540 | 0.529 | 1.278 | 0.854 | 0.550 | 0.491 | 1.321 | 1.067 | 0.689 | 0.615 | 1.672 | 1.352 | 0.689 | 0.572 | 1.553 | 1.210 | 1.210 | 0.633 | 1.701 | 1.325 | 0.834 | 0.697 | 1.764 | 1.334 | 1.016 | 0.646 |
| | X | 0.368 | 0.286 | 0.245 | 0.204 | 0.368 | 0.368 | 0.286 | 0.204 | 0.409 | 0.368 | 0.327 | 0.245 | 0.450 | 0.368 | 0.327 | 0.245 | 0.450 | 0.368 | 0.368 | 0.286 | 0.491 | 0.409 | 0.409 | 0.286 | 0.491 | 0.409 | 0.368 | 0.268 | 0.532 | 0.450 | 0.368 | 0.327 |
| | Y | 0.450 | 0.350 | 0.300 | 0.250 | 0.450 | 0.450 | 0.350 | 0.250 | 0.500 | 0.450 | 0.400 | 0.300 | 0.550 | 0.450 | 0.400 | 0.300 | 0.550 | 0.450 | 0.450 | 0.350 | 0.600 | 0.500 | 0.500 | 0.350 | 0.600 | 0.500 | 0.450 | 0.350 | 0.650 | 0.550 | 0.450 | 0.400 |
| 125 | L | 1.167 | 0.631 | 0.524 | 0.503 | 1.425 | 0.947 | 0.607 | 0.531 | 1.578 | 1.264 | 0.644 | 0.527 | 1.664 | 1.286 | 0.805 | 0.658 | 1.801 | 1.629 | 1.019 | 0.644 | 1.991 | 1.494 | 1.494 | 0.712 | 1.885 | 1.637 | 1.234 | 0.780 | 2.004 | 1.680 | 1.224 | 0.755 |
| | X | 0.378 | 0.378 | 0.297 | 0.215 | 0.419 | 0.378 | 0.337 | 0.256 | 0.460 | 0.378 | 0.378 | 0.297 | 0.501 | 0.419 | 0.378 | 0.297 | 0.542 | 0.419 | 0.378 | 0.337 | 0.542 | 0.460 | 0.460 | 0.337 | 0.583 | 0.460 | 0.378 | 0.337 | 0.624 | 0.501 | 0.419 | 0.378 |
| | Y | 0.462 | 0.462 | 0.362 | 0.262 | 0.513 | 0.462 | 0.412 | 0.312 | 0.563 | 0.462 | 0.462 | 0.362 | 0.613 | 0.513 | 0.462 | 0.362 | 0.663 | 0.513 | 0.462 | 0.412 | 0.663 | 0.563 | 0.563 | 0.412 | 0.713 | 0.563 | 0.462 | 0.412 | 0.763 | 0.613 | 0.513 | 0.462 |
| 150 | L | 1.304 | 0.862 | 0.706 | 0.472 | 1.631 | 1.293 | 0.659 | 0.532 | 1.840 | 1.412 | 0.879 | 0.708 | 1.972 | 1.471 | 1.099 | 0.689 | 2.166 | 1.577 | 1.392 | 0.699 | 2.095 | 1.743 | 1.743 | 0.773 | 2.294 | 1.909 | 1.379 | 0.847 | 2.465 | 1.993 | 1.400 | 1.031 |
| | X | 0.429 | 0.389 | 0.307 | 0.266 | 0.470 | 0.389 | 0.389 | 0.307 | 0.511 | 0.429 | 0.389 | 0.307 | 0.552 | 0.470 | 0.389 | 0.348 | 0.593 | 0.511 | 0.389 | 0.389 | 0.634 | 0.511 | 0.511 | 0.389 | 0.634 | 0.511 | 0.429 | 0.389 | 0.675 | 0.552 | 0.470 | 0.389 |
| | Y | 0.525 | 0.475 | 0.375 | 0.325 | 0.575 | 0.475 | 0.475 | 0.375 | 0.625 | 0.525 | 0.475 | 0.375 | 0.675 | 0.575 | 0.475 | 0.425 | 0.725 | 0.625 | 0.475 | 0.475 | 0.775 | 0.625 | 0.625 | 0.475 | 0.775 | 0.625 | 0.525 | 0.475 | 0.825 | 0.675 | 0.575 | 0.475 |
| 200 | L | 1.775 | 1.383 | 0.705 | 0.554 | 1.956 | 1.715 | 1.058 | 0.656 | 2.272 | 1.637 | 1.411 | 0.708 | 2.496 | 2.047 | 1.457 | 0.886 | 2.498 | 1.947 | 1.551 | 1.122 | 2.761 | 2.152 | 2.152 | 1.240 | 2.714 | 2.357 | 1.877 | 1.358 | 2.982 | 2.522 | 1.947 | 1.366 |
| | X | 0.491 | 0.409 | 0.409 | 0.327 | 0.573 | 0.450 | 0.409 | 0.368 | 0.614 | 0.532 | 0.409 | 0.409 | 0.654 | 0.532 | 0.450 | 0.409 | 0.736 | 0.614 | 0.491 | 0.409 | 0.736 | 0.614 | 0.614 | 0.409 | 0.777 | 0.614 | 0.491 | 0.409 | 0.818 | 0.654 | 0.532 | 0.450 |
| | Y | 0.600 | 0.500 | 0.500 | 0.400 | 0.700 | 0.550 | 0.500 | 0.450 | 0.750 | 0.650 | 0.500 | 0.500 | 0.800 | 0.650 | 0.550 | 0.500 | 0.900 | 0.750 | 0.600 | 0.500 | 0.900 | 0.750 | 0.750 | 0.500 | 0.950 | 0.750 | 0.600 | 0.500 | 1.000 | 0.800 | 0.650 | 0.550 |
| 250 | L | 1.900 | 1.634 | 1.000 | 0.766 | 2.201 | 1.779 | 1.499 | 0.753 | 2.608 | 2.056 | 1.667 | 1.004 | 2.917 | 2.249 | 1.763 | 1.255 | 3.010 | 2.514 | 1.915 | 1.590 | 3.024 | 2.470 | 2.470 | 1.465 | 3.312 | 2.706 | 2.009 | 1.605 | 3.375 | 2.653 | 2.141 | 1.653 |
| | X | 0.593 | 0.470 | 0.429 | 0.348 | 0.675 | 0.552 | 0.429 | 0.429 | 0.716 | 0.593 | 0.470 | 0.429 | 0.757 | 0.634 | 0.511 | 0.429 | 0.838 | 0.675 | 0.552 | 0.429 | 0.879 | 0.716 | 0.716 | 0.470 | 0.879 | 0.716 | 0.593 | 0.470 | 0.961 | 0.798 | 0.634 | 0.511 |
| | Y | 0.725 | 0.575 | 0.525 | 0.425 | 0.825 | 0.675 | 0.525 | 0.525 | 0.875 | 0.725 | 0.575 | 0.525 | 0.925 | 0.775 | 0.625 | 0.525 | 1.025 | 0.825 | 0.675 | 0.525 | 1.075 | 0.875 | 0.875 | 0.575 | 1.075 | 0.875 | 0.725 | 0.575 | 1.175 | 0.975 | 0.775 | 0.625 |
| 300 | L | 2.247 | 1.842 | 1.311 | 0.797 | 2.663 | 2.075 | 1.653 | 0.989 | 2.876 | 2.432 | 1.878 | 1.318 | 3.260 | 2.693 | 2.024 | 1.647 | 3.443 | 2.730 | 2.233 | 1.753 | 3.495 | 3.018 | 3.018 | 1.651 | 3.527 | 2.983 | 2.376 | 1.808 | 3.970 | 3.294 | 2.562 | 1.898 |
| | X | 0.654 | 0.532 | 0.450 | 0.409 | 0.736 | 0.614 | 0.491 | 0.450 | 0.818 | 0.654 | 0.532 | 0.450 | 0.859 | 0.695 | 0.573 | 0.450 | 0.941 | 0.777 | 0.614 | 0.491 | 0.982 | 0.777 | 0.777 | 0.532 | 1.023 | 0.818 | 0.654 | 0.532 | 1.063 | 0.859 | 0.695 | 0.573 |
| | Y | 0.800 | 0.650 | 0.550 | 0.500 | 0.900 | 0.750 | 0.600 | 0.550 | 1.000 | 0.800 | 0.650 | 0.550 | 1.050 | 0.850 | 0.700 | 0.550 | 1.150 | 0.950 | 0.750 | 0.600 | 1.200 | 0.950 | 0.950 | 0.650 | 1.250 | 1.000 | 0.800 | 0.650 | 1.300 | 1.050 | 0.850 | 0.700 |
| 350 | L | 2.556 | 2.015 | 1.633 | 0.820 | 3.088 | 2.334 | 1.777 | 1.231 | 3.387 | 2.767 | 2.055 | 1.641 | 3.544 | 2.785 | 2.247 | 1.736 | 3.812 | 3.192 | 2.512 | 1.885 | 3.902 | 3.208 | 3.208 | 2.084 | 3.968 | 3.208 | 2.704 | 1.978 | 4.498 | 3.580 | 2.650 | 2.108 |
| | X | 0.716 | 0.593 | 0.470 | 0.470 | 0.798 | 0.675 | 0.552 | 0.470 | 0.879 | 0.716 | 0.593 | 0.470 | 0.961 | 0.798 | 0.634 | 0.511 | 1.043 | 0.838 | 0.675 | 0.552 | 1.084 | 0.879 | 0.879 | 0.552 | 1.125 | 0.920 | 0.716 | 0.593 | 1.166 | 0.961 | 0.798 | 0.634 |
| | Y | 0.875 | 0.725 | 0.575 | 0.575 | 0.975 | 0.825 | 0.675 | 0.575 | 1.075 | 0.875 | 0.725 | 0.575 | 1.175 | 0.975 | 0.775 | 0.625 | 1.275 | 1.025 | 0.825 | 0.675 | 1.325 | 1.075 | 1.075 | 0.675 | 1.375 | 1.125 | 0.875 | 0.725 | 1.425 | 1.175 | 0.975 | 0.775 |
| 400 | L | 2.832 | 2.161 | 1.669 | 0.984 | 3.169 | 2.562 | 2.159 | 1.477 | 3.550 | 2.767 | 2.204 | 1.677 | 3.781 | 3.137 | 2.441 | 1.808 | 4.130 | 3.312 | 2.757 | 1.995 | 4.255 | 3.362 | 3.362 | 2.205 | 4.355 | 3.683 | 2.995 | 2.122 | 4.660 | 3.820 | 2.985 | 2.289 |
| | X | 0.777 | 0.654 | 0.532 | 0.491 | 0.900 | 0.736 | 0.573 | 0.491 | 0.982 | 0.818 | 0.654 | 0.532 | 1.063 | 0.859 | 0.695 | 0.573 | 1.145 | 0.941 | 0.736 | 0.613 | 1.186 | 0.982 | 0.982 | 0.613 | 1.227 | 0.982 | 0.777 | 0.654 | 1.309 | 1.063 | 0.859 | 0.695 |
| | Y | 0.950 | 0.800 | 0.650 | 0.600 | 1.100 | 0.900 | 0.700 | 0.600 | 1.200 | 1.000 | 0.800 | 0.650 | 1.300 | 1.050 | 0.850 | 0.700 | 1.400 | 1.150 | 0.900 | 0.750 | 1.450 | 1.200 | 1.200 | 0.750 | 1.500 | 1.200 | 0.950 | 0.800 | 1.600 | 1.300 | 1.050 | 0.850 |
| 450 | L | 3.079 | 2.572 | 1.959 | 1.148 | 3.515 | 2.763 | 2.229 | 1.722 | 3.980 | 3.030 | 2.623 | 1.969 | 4.278 | 3.458 | 2.608 | 2.133 | 4.405 | 3.695 | 2.973 | 2.364 | 4.565 | 3.770 | 3.770 | 2.306 | 4.999 | 3.823 | 3.257 | 2.526 | 5.074 | 4.322 | 3.291 | 2.733 |
| | X | 0.838 | 0.675 | 0.552 | 0.511 | 0.961 | 0.798 | 0.634 | 0.511 | 1.043 | 0.879 | 0.675 | 0.552 | 1.125 | 0.920 | 0.757 | 0.593 | 1.247 | 1.002 | 0.798 | 0.634 | 1.288 | 1.043 | 1.043 | 0.675 | 1.288 | 1.084 | 0.838 | 0.675 | 1.411 | 1.125 | 0.920 | 0.716 |
| | Y | 1.025 | 0.825 | 0.675 | 0.625 | 1.175 | 0.975 | 0.775 | 0.625 | 1.275 | 1.075 | 0.825 | 0.675 | 1.375 | 1.125 | 0.925 | 0.725 | 1.525 | 1.225 | 0.975 | 0.775 | 1.575 | 1.275 | 1.275 | 0.825 | 1.575 | 1.325 | 1.025 | 0.825 | 1.725 | 1.375 | 1.125 | 0.875 |
| 500 | L | 3.301 | 2.668 | 1.959 | 1.310 | 3.834 | 2.941 | 2.288 | 1.965 | 4.075 | 3.269 | 2.721 | 1.968 | 4.438 | 3.753 | 2.755 | 2.163 | 4.940 | 4.050 | 3.165 | 2.427 | 5.135 | 4.151 | 4.151 | 2.682 | 5.298 | 4.227 | 3.491 | 2.620 | 5.446 | 4.483 | 3.571 | 2.863 |
| | X | 0.900 | 0.736 | 0.614 | 0.532 | 1.023 | 0.859 | 0.695 | 0.532 | 1.145 | 0.941 | 0.736 | 0.614 | 1.227 | 0.982 | 0.818 | 0.65 | | | | | | | | | | | | | | | | |