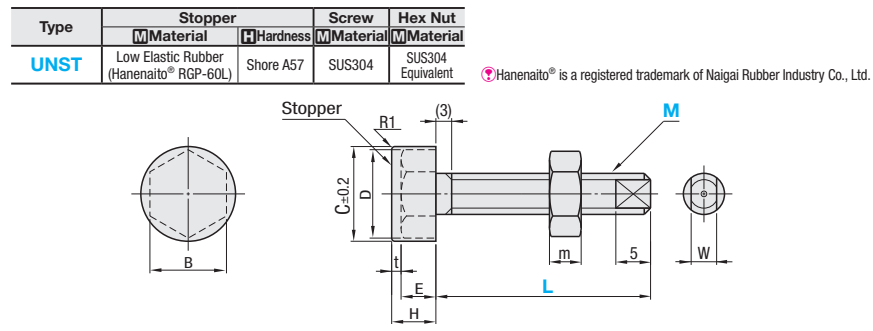


Shock Absorption Stoppers

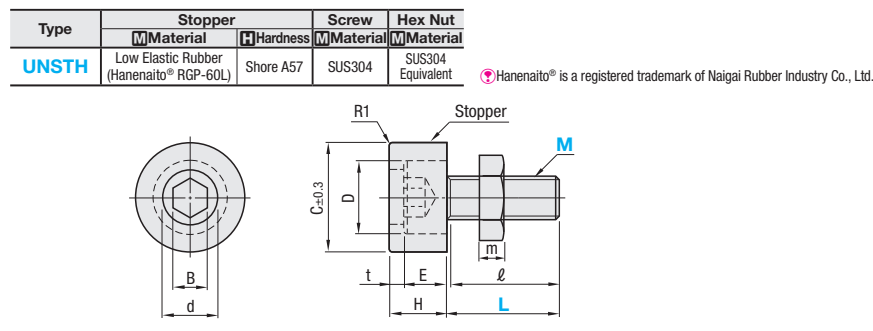
Bolts / Hex Socket Head Cap Screws with Low Elastic Rubber Head

Bolts with Low Elastic Rubber Head



| Part Number Type | M (Coarse) | L Selection | | | | t | C | D | B | H | E | Shock Absorption Amount (kgf·cm) | Withstand Load (kgf) | m | W | Unit Price |
|------------------|------------|-------------|----|----|-----|----|------|-----|----|-----|-------|----------------------------------|----------------------|-----|---|------------|
| | | 10 | 15 | 20 | 30 | | | | | | | | | | | |
| UNST | 3 | 10 | 15 | 20 | 4 | 8 | 6.15 | 5.5 | 6 | 2 | 0.045 | 2.2 | 1.8 | 2 | | |
| | 4 | 10 | 15 | 20 | 4.2 | 10 | 7.7 | 7 | 7 | 2.8 | 0.069 | 3.4 | 2.4 | 3 | | |
| | 5 | | 20 | 30 | 4.5 | 12 | 8.8 | 8 | 8 | 3.5 | 0.112 | 5.4 | 3.2 | 4 | | |
| | 6 | | 20 | 30 | 5 | 15 | 11.1 | 10 | 9 | 4 | 0.207 | 9.4 | 3.6 | 4.5 | | |
| | 8 | | 30 | 40 | 5.7 | 18 | 14.4 | 13 | 11 | 5.3 | 0.350 | 14.2 | 5 | 6.5 | | |
| | 10 | | 30 | 40 | 5.6 | 21 | 17.8 | 16 | 12 | 6.4 | 0.517 | 23.4 | 6 | 8 | | |

Hex Socket Head Cap Screws with Low Elastic Rubber Head



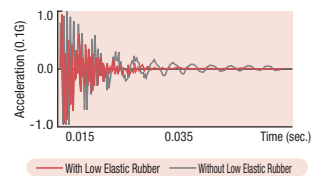
| Part Number Type | M (Coarse) | L Selection | | | | t | C | D | d | B | H | E | Shock Absorption Amount (kgf·cm) | Withstand Load (kgf) | m | l | Unit Price |
|------------------|------------|-------------|----|----|-----|----|-----|----|---|------|----|-------|----------------------------------|----------------------|------------------|---|------------|
| | | 10 | 15 | 20 | 30 | | | | | | | | | | | | |
| UNSTH | 4 | 10 | 15 | 20 | 4.2 | 11 | 7 | 5 | 3 | 8.2 | 4 | 0.055 | 2.4 | 3.2 | Full Thread (22) | | |
| | 5 | | 15 | 20 | 4.5 | 13 | 8.5 | 7 | 4 | 9.5 | 5 | 0.072 | 3.0 | 4 | Full Thread | | |
| | 6 | | 15 | 20 | 5 | 18 | 10 | 8 | 5 | 11 | 6 | 0.197 | 7.4 | 5 | Full Thread (26) | | |
| | 8 | | 25 | 30 | 5.7 | 20 | 13 | 9 | 6 | 13.7 | 8 | 0.272 | 8.8 | 6.5 | Full Thread | | |
| | 10 | | 30 | 40 | 5.6 | 25 | 16 | 12 | 8 | 15.6 | 10 | 0.444 | 14.4 | 8 | Full Thread (34) | | |

ℓ dimension for * marked L dimension is in ().

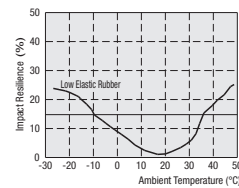
| Part Number | L |
|-------------|----|
| UNST8 | 40 |
| UNSTH4 | 20 |

Material with Excellent Shock Absorption

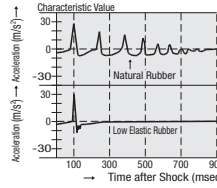
Low Elastic Rubber
It is used as cushioning material for pallet damper, conveyor machine, precision instrument etc, because of its good elongation and shock absorption. Also it is used as vibration absorption materials of various precision instruments because of its excellent vibration absorption.



Impact Resilience Variation by Temperature of Low Elastic Rubber



Shock Absorption of Low Elastic Rubber

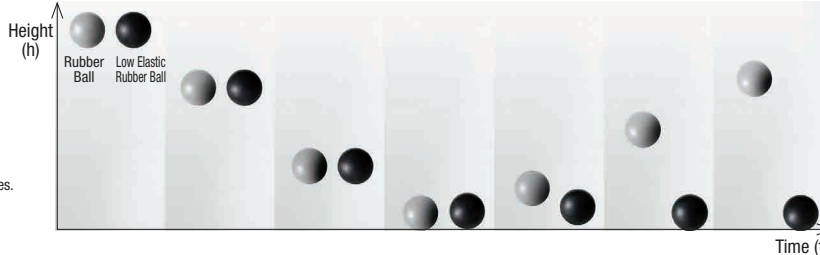


Properties

| Item | Unit | Low Elastic Rubber |
|-------------------|------------------------|--------------------|
| Hardness | (JIS-A) | 57 |
| Tensile Strength | (MPa) | 8.3 |
| (Same as above) | (kgf/cm ²) | 85 |
| Elongation | (%) | 810 |
| Impact Resilience | (%) | 2 |
| Compression Set | 70°C x 22hr (%) | 16 |
| Specific Gravity | | 1.35 |

Above data are standard values, not guaranteed values.

Drop Comparison of Rubber Ball and Low Elastic Rubber Ball



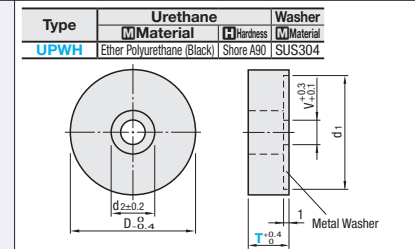
Washers, Stoppers with Plates

Urethane Type, Low Elastic Rubber Type

Urethane Type Urethane Stoppers with Washers



Urethane is baked on a SUS304 plate.

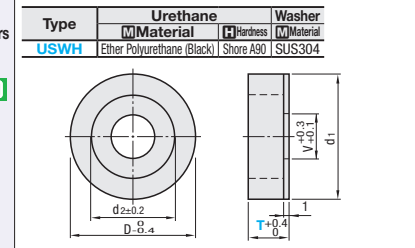


| Part Number Type | No. | T | D | d1 | d2 | V | Unit Price | Volume Discount Rate | | |
|------------------|-----|----|----|----|-----|---|------------|----------------------|-------------|--------------|
| | | | | | | | 1 - 4 pcs | 5 - 19 pcs | 20 - 49 pcs | 50 - 200 pcs |
| UPWH | 3 | 7 | 15 | 14 | 6 | 3 | | | | |
| | 10 | | | | | | | | | |
| | 4 | 8 | 20 | 19 | 8 | 4 | | | | |
| | 15 | | | | | | | | | |
| | 5 | 9 | 25 | 24 | 9.5 | 5 | | | | |
| | 20 | | | | | | | | | |
| | 6 | 10 | 30 | 29 | 11 | 6 | | | | |
| | 25 | | | | | | | | | |
| | 8 | 12 | 40 | 39 | 14 | 8 | | | | |
| | 30 | | | | | | | | | |
| 10 | 14 | 50 | 49 | 17 | 10 | | | | | |
| | 35 | | | | | | | | | |

Urethane Type Urethane Stoppers with Washers for Extra Low Head Screws



Urethane is baked on a SUS304 plate.

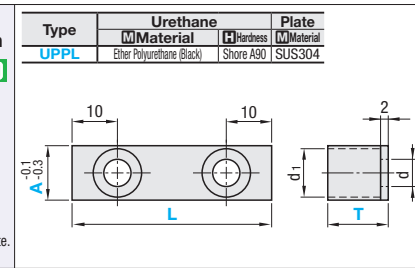


| Part Number Type | No. | T | D | d1 | d2 | V | Unit Price | Example | | |
|------------------|-----|----|----|----|----|-----|------------|----------------|--|--|
| | | | | | | | min.3mm | CBSTS (P2-195) | | |
| USWH | 3 | 4 | 11 | 10 | 7 | 3.5 | | | | |
| | 7 | | | | | | | | | |
| | 4 | 4 | 13 | 12 | 9 | 4.5 | | | | |
| | 7 | | | | | | | | | |
| | 5 | 4 | 14 | 13 | 10 | 6 | | | | |
| | 7 | | | | | | | | | |
| 6 | 4 | 15 | 14 | 11 | 7 | | | | | |
| | 7 | | | | | | | | | |

Urethane Type Urethane Stoppers with Plates



Urethane is baked on a SUS304 plate. * Use low head bolts.



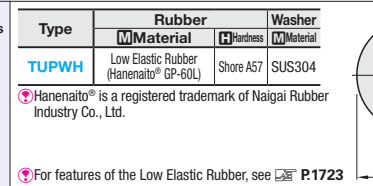
| Part Number Type | A | T Selection | L Selection | d | d1 | Unit Price |
|------------------|----|-------------|-------------|-----|-----|------------|
| | | | | | | 12 |
| UPPL | 15 | 8 | 50 | 4.5 | 8.0 | |
| | 19 | 10 | 50 | | | |
| | | | 75 | | | |

| Part Number | T | L |
|-------------|---|----|
| UPWH4 | 8 | |
| USWH3 | 7 | |
| UPPL12 | 6 | 30 |

Low Elastic Rubber Type Low Elastic Rubber Stoppers with Washers



Rubber is baked on a SUS304 plate.



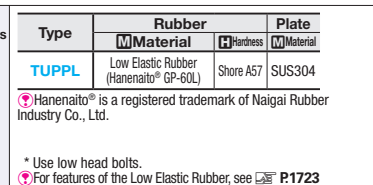
| Part Number Type | No. | T | D | d1 | d2 | V | Shock Absorption Amount (kgf·cm) | Withstand Load (kgf) | Unit Price |
|------------------|-----|----|----|----|-----|---|----------------------------------|----------------------|------------|
| | | | | | | | 3 | 7 | 15 |
| TUPWH | 10 | | | | | | 0.161 | 3.6 | |
| | 4 | 8 | 20 | 19 | 8 | 4 | 0.261 | 8.0 | |
| | 15 | | | | | | 0.474 | 6.8 | |
| | 5 | 9 | 25 | 24 | 9.5 | 5 | 0.523 | 14.0 | |
| | 10 | | | | | | 0.919 | 21.4 | |
| | 25 | | | | | | 2.018 | 16.4 | |
| | 6 | 12 | 40 | 39 | 14 | 8 | 2.221 | 41.6 | |
| | 12 | | | | | | | | |

| Part Number Type | No. | T | D | d1 | d2 | V | Shock Absorption Amount (kgf·cm) | Withstand Load (kgf) | Unit Price |
|------------------|-----|----|----|----|-----|---|----------------------------------|----------------------|------------|
| | | | | | | | 3 | 7 | 15 |
| TUPWH | 10 | | | | | | 0.161 | 3.6 | |
| | 4 | 8 | 20 | 19 | 8 | 4 | 0.261 | 8.0 | |
| | 15 | | | | | | 0.474 | 6.8 | |
| | 5 | 9 | 25 | 24 | 9.5 | 5 | 0.523 | 14.0 | |
| | 10 | | | | | | 0.919 | 21.4 | |
| | 25 | | | | | | 2.018 | 16.4 | |
| | 6 | 12 | 40 | 39 | 14 | 8 | 2.221 | 41.6 | |
| | 12 | | | | | | | | |

Low Elastic Rubber Type Low Elastic Rubber Stoppers with Plates



Rubber is baked on a SUS304 plate. * Use low head bolts.



| Part Number Type | A | T Selection | L Selection | d | d1 | Shock Absorption Amount (kgf·cm) | Withstand Load (kgf) | Unit Price |
|------------------|----|-------------|-------------|-----|------|----------------------------------|----------------------|------------|
| | | | | | | 12 | 6 | 30 |
| TUPPL | 10 | | | | | 0.577 | 17.6 | |
| | 30 | | | | | 0.324 | 6.0 | |
| | 50 | | | | | 0.786 | 14.6 | |
| | 15 | 10 | 30 | 3.5 | 6.5 | 0.408 | 7.4 | |
| | 50 | | | | | 1.024 | 19.0 | |
| | 19 | 10 | 50 | 4.5 | 8.0 | 1.234 | 23.0 | |
| | | 75 | | | 2.51 | 47.0 | | |

| Part Number | T | L |
|-------------|----|----|
| TUPWH6 | 10 | |
| TUPPL12 | 6 | 30 |