

```

*Heading
** Job name: lerjob Model name: ducebut
*Preprint, echo=NO, model=NO, history=NO, contact=NO
**
** PARTS
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*Part, name=finalcrystal
*End Part
*Part, name=indentador
*End Part
**
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**
*Instance, name=Part-4-1, part=finalcrystal
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  3,  0.2354666,   -1.1,  -0.2354666
  4,  -6.127788,    0.,   6.127788
  5,  0.7071068,   -1.4,  -0.7071068
  6,  -271.529,   -384.,   271.529
  .
  .
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10469,    0.,   -240.,    48.
10470,  12.42331,  -240.,   46.36444
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10472,  33.94112,  -240.,   33.94112
10473,  41.56922,  -240.,    24.
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10035, 1122, 1122, 1385, 262, 2000, 984, 6499, 6500
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4596, 6422, 1793, 515, 1238, 877, 2378, 2150, 1872
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9629, 6455, 6454, 2372, 6472, 6473, 2407

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**Solid Section, elset=coating1, material=CP
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*Elset, elset=substract1, instance=Part-4-1
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**Orientation, name=Ori-1
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*Instance, name=indentador-1, part=indentador
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-4.43378667114303e-12, 68.9922915557937, 7.105427357601e-15, 0.99999999995566, 68.9922915557938,
7.105427357601e-15, 89.9999990194245
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  2, 0., 0., 68.99229
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  4, -259.8076, -150., 0.
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2, 3, 2, 4
3, 4, 2, 1
*Node
  5, 0., 0., -100.
*Nset, nset=indentador-1-RefPt_, internal
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*Elset, elset=indentador-1, generate
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*End Instance
*Nset, nset=_PickedSet1926, internal, instance=indentador-1
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*Nset, nset=RP, instance=indentador-1
5,
*Nset, nset=_PickedSet1922, internal, instance=Part-4-1
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  1389, 1409, 1427, 1503, 1512, 1558, 1563, 1569, 1607, 1619, 1702, 1721, 1753, 1806, 1809, 1872
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  2427,
*Elset, elset=_PickedSurf1927_SPOS, internal, instance=indentador-1, generate
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_PickedSurf1927_SPOS, SPOS
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*Elset, elset=__PickedSurf1928_S5, internal, instance=Part-4-1

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*Surface, type=ELEMENT, name=__PickedSurf1928, internal
__PickedSurf1928_S2, S2
__PickedSurf1928_S3, S3
__PickedSurf1928_S4, S4
__PickedSurf1928_S6, S6
__PickedSurf1928_S5, S5
*Rigid Body, ref_node=indentador-1.indentador-1-RefPt_, elset=indentador-1.indentador-1
*End Assembly
**
** MATERIALS
**
*Material, name=CP
*INCLUDE, INPUT=CP.inp
*Material, name=Anisotropic_Elasticity
*INCLUDE, INPUT=Anisotropic_Elasticity.inp
** INTERACTION PROPERTIES
**
*Surface Interaction, name=IntProp-1
1.,
*Friction
0.,
*Surface Behavior, pressure-overclosure=HARD
**
** BOUNDARY CONDITIONS
**
** Name: fixation Type: Displacement/Rotation
*Boundary
__PickedSet1926, 1, 1
__PickedSet1926, 2, 2
__PickedSet1926, 3, 3
__PickedSet1926, 4, 4
__PickedSet1926, 5, 5
__PickedSet1926, 6, 6
__PickedSet1922, 1, 1
__PickedSet1922, 2, 2
__PickedSet1922, 3, 3
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** INTERACTIONS
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** Interaction: contact
*Contact Pair, interaction=IntProp-1
__PickedSurf1928, __PickedSurf1927
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**
** STEP: Step-1
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*Step, name=Step-1, nlgeom=YES, inc=100000, unsymm=YES
*Static
0.003, 1., 1e-05, 0.003
**
** BOUNDARY CONDITIONS
**
** Name: displacement Type: Displacement/Rotation
*Boundary
__PickedSet1926, 2, 2, -4.60
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** OUTPUT REQUESTS
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*Restart, write, frequency=10
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** FIELD OUTPUT: F-Output-1
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*Output, field, frequency=20
*Node Output

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U,  
*Element Output  
LE, S, SDV  
**  
** HISTORY OUTPUT: H-Output-1  
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*Output, history, frequency=3  
*Node Output, nset=RP  
RF2, U2  
*Contact Output  
CAREA,  
*End Step  
**  
** STEP: Step-2  
**  
*Step, name=Step-2, nlgeom=YES, inc=100000, unsymm=YES  
*Static  
0.003, 1., 1e-05, 0.003  
**  
** BOUNDARY CONDITIONS  
**  
** Name: displacement Type: Displacement/Rotation  
*Boundary  
_PickedSet1926, 2, 2, 0.0  
**  
** OUTPUT REQUESTS  
**  
*Restart, write, frequency=10  
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** FIELD OUTPUT: F-Output-1  
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*Output, field, frequency=20  
*Node Output  
U,  
*Element Output  
LE, S, SDV  
**  
** HISTORY OUTPUT: H-Output-1  
**  
*Output, history, frequency=3  
*Node Output, nset=RP  
RF2, U2  
*Contact Output  
CAREA,  
*End Step
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