*SET_SOLID_{OPTION1}_{OPTION2}

For *OPTION1* the available options are:

<BLANK>

GENERATE

GENERATE_INCREMENT

GENERAL

For *OPTION2* the available option is:

COLLECT

The GENERATE and GENERATE_INCREMENT options will generate block(s) of solid element IDs between a starting ID and an ending ID. An arbitrary number of blocks can be specified to define the solid element set.

Purpose: Define a set of solid elements.

Card 1	1	2	3	4	5	6	7	8
Variable	SID	SOLVER						
Type	I	A						
Default	none	MECH						
Remark		1						

Solid Element ID Cards. This Card 2 format applies to the case of an unset (<BLANK>) keyword option. Set one value per solid element in the set. Include as many cards as needed. This input ends at the next keyword ("*") card.

Card 2	1	2	3	4	5	6	7	8
Variable	K1	K2	K3	K4	K5	K6	K7	K8
Type	I	I	I	I	I	I	I	I

Solid Element ID Range Cards. This Card 2 format applies to the GENERATE keyword option. Set one pair of BNBEG and BNEND values per block of solid elements. Include as many cards as needed. This input ends at the next keyword ("*") card.

Card 2	1	2	3	4	5	6	7	8
Variable	B1BEG	B1END	B2BEG	B2END	B3BEG	B3END	B4BEG	B4END
Type	I	I	I	I	I	I	I	I

Solid Element ID Range with Increment Cards. This Card 2 format applies to the GENERATE_INCREMENT keyword option. For each block of solid elements add one card to the deck. This input ends at the next keyword ("*") card.

Card 2	1	2	3	4	5	6	7	8
Variable	BBEG	BEND	INCR					
Type	I	I	I					

Generalized Solid Element ID Range Cards. This Card 2 format applies to the GENERAL keyword option. Include as many cards as needed. This input ends at the next keyword ("*") card.

Card 2	1	2	3	4	5	6	7	8
Variable	OPTION	E1	E2	E3	E4	E5	E6	E7
Type	A	I	I	I	I	I	I	I

VARIABLE	DESCRIPTION
SID	Set ID. All solid sets should have a unique set ID.
SOLVER	Name of solver using this set (MECH, CESE, etc.)
K1	First element ID
K2	Second element ID
⋮	⋮
K8	Eighth element ID

VARIABLE	DESCRIPTION
B[N]BEG	First solid element ID in block N.
B[N]END	Last solid element ID in block N. All defined ID's between and including B[N]BEG to B[N]END are added to the set. These sets are generated after all input is read so that gaps in the element numbering are not a problem. B[N]BEG and B[N]END may simply be limits on the ID's and not element IDs.
BBEG	First solid element ID in block.
BEND	Last solid element ID in block.
INCR	Solid ID increment. Solid IDs BBEG, BBEG + INCR, BBEG + 2 × INCR, and so on through BEND are added to the set.
OPTION	Option for GENERAL. See table below.
E1, ..., E7	Specified entity. Each card must have the option specified. See table below.

The General Option:

The "OPTION" column in the table below enumerates the allowed values for the "OPTION" variable in Card 2 for the GENERAL option. Likewise, the variables E1, …, E7 refer to the GENERAL option Card 2.

Each of the following operations accept up to 7 arguments, but they may take fewer. Values of "En" left unspecified are ignored.

OPTION	DESCRIPTION
ALL	All solid elements will be included in the set.
ELEM	Elements E1, E2, E3, ... will be included.
DELEM	Elements E1, E2, E3, ... previously added will be excluded.
PART	Elements of parts E1, E2, E3, ... will be included.
DPART	Elements of parts E1, E2, E3, ... previously added will be excluded.
BOX	Elements inside boxes E1, E2, E3, ... will be included. (see *DEFINE_BOX)
DBOX	Elements inside boxes E1, E2, E3, ... previously added will be excluded.

OPTION	DESCRIPTION
SALECPT	Elements inside a box in Structured ALE mesh. E1 here is the S-ALE mesh ID (MSHID). E2, E3, E4, E5, E6, E7 correspond to XMIN, XMAX, YMIN, YMAX, ZMIN, ZMAX. They are the minimum and the maximum nodal indices along each direction in S-ALE mesh. This option is only to be used for Structured ALE mesh and should not be used in a mixed manner with other "_GENERAL" options. Please refer to *ALE_STRUCTURED_MESH_CONTROL_POINTS and *ALE_STRUCTURED_MESH_CONTROL for more details.
SALEFAC	Elements on the face of Structured ALE mesh. E1 here is the S-ALE mesh ID (MSHID). E2, E3, E4, E5, E6, E7 correspond to -X, +X, -Y, +Y, -Z, +Z faces. Assigning 1 to these 6 values would include all the boundary elements at these faces in the segment set. This option is only to be used for Structured ALE mesh and should not be used in a mixed manner with other "_GENERAL" options. Please refer to *ALE_STRUCTURED_MESH_CONTROL_POINTS and *ALE_STRUCTURED_MESH_CONTROL for more details.

Remarks:

1. This field is used by a non-mechanics solver to create a set defined on that solver's mesh. By default, the set refers to the mechanics mesh.