

FUNDAMENTAL MANUFACTURING PROCESSES

Plastics Finishing

SCENE 1.

tape 421, 15:20:04-15:20:10
part coming out of injection
mold

tape 403, 01:46:21-01:46:25
parts being blow molded

tape 630, 08:07:53-08:07:58
parts being thermoformed

tape 421, 15:04:02-15:04:10
zoom out, part coming out of
injection mold

NARRATION (VO) :

THE MOLDING OF PLASTICS IS A COMMON METHOD OF
MANUFACTURING PARTS, AND ENCOMPASSES A VARIETY OF
PROCESSES, WITH THE PRINCIPAL TYPE BEING PLASTIC
INJECTION MOLDING.

SCENE 2.

tape 408, 10:03:25-10:03:37
zoom out, plastic being sucked
CG, SUPER: Thermoplastics
Thermosets

NARRATION (VO) :

INJECTION MOLDED PARTS ARE PRODUCED FROM TWO TYPES
OF PLASTICS:
THERMOPLASTICS,
AND THERMOSETS.

SCENE 3.

tape 392, 08:23:46-08:24:01
thermoplastic melted

tape 398, 02:09:32-02:09:40
thermoplastic being reground

NARRATION (VO) :

THERMOPLASTICS UNDERGO A REVERSIBLE CHANGE FROM
SOLID TO LIQUID WHEN HEATED, AND CAN BE COOLED,
AND REGROUND FOR REUSE OVER AND OVER AGAIN.

SCENE 4.

tape 403, 01:30:29-01:30:42
2 shots, zoom out, thermoset
mold closing, dissolve to mold
opening, showing thermoset parts
tape 403, 01:33:19-01:33:24
thermoset parts pulled from mold

NARRATION (VO) :

THERMOSETS UNDERGO A CHEMICAL REACTION BETWEEN TWO
REAGENTS WHEN HEATED, AND ACHIEVE THEIR STRENGTH
THROUGH THE INTERLOCKING CHEMICAL BONDS. ONCE
MOLDED, THERMOSETS CANNOT BE RESOFTENED.

SCENE 5.

tape 417, 12:05:34-12:05:46
thermoplastic part pulled out of
mold

NARRATION (VO) :

OF THE TWO TYPES OF MATERIALS, THERMOPLASTICS ARE
THE MOST PREDOMINATELY USED.

SCENE 6.

tape 428, 00:06:24-00:06:44

NARRATION (VO) :

ANI: injection molding process,
flip image, run at double speed
tape 415, 10:25:49-10:26:02
mold opening and plastic part
falling out

IN INJECTION MOLDING, MOLTEN PLASTIC MATERIAL IS
INJECTED AT HIGH PRESSURE INTO A MOLD CONTAINING
THE FORM OF A PART. ONCE THIS PLASTIC COOLS AND
SOLIDIFIES, THE MOLD OPENS, AND THE PART IS
EJECTED.

SCENE 7.

tape 626, 06:10:12-06:10:24
parts being ultrasonically
assembled
tape 641, 19:08:09-19:08:16
zoom in, part being deflashed
tape 628, 07:26:28-07:26:34
part being blasted
tape 626, 06:07:06-06:07:10
part being degated
tape 621, 15:05:21-15:05:28
parts being decorated, painted
tape 635, 15:23:01-15:23:06
parts being decorated, plated
tape 625, 05:14:16-05:14:19
part being degated
CG, SUPER: Degating
tape 625, 05:15:23-05:15:30
part being deflashed
CG, SUPER: Deflashing
tape 621, 15:02:17-15:02:23
parts being cleaned
CG, SUPER: Cleaning
tape 639, 16:04:06-16:04:13
part being decorated, silk
screened
CG, SUPER: Decorating

NARRATION (VO) :

ONCE MOLDED, MOST PARTS REQUIRE ADDITIONAL
PROCESSING, SUCH AS ASSEMBLY FOR COMPLETION.
BUT MANY PLASTICS FINISHING PROCESSES ARE
PERFORMED FOR AESTHETIC, OR APPEARANCE, PURPOSES.
THESE FINISHING PROCESSES ARE THE PRIMARY FOCUS OF
THIS PROGRAM, AND INCLUDE:
DEGATING...,
DEFLASHING...,
CLEANING...,
AND DECORATING.

--- FADE TO BLACK ---