

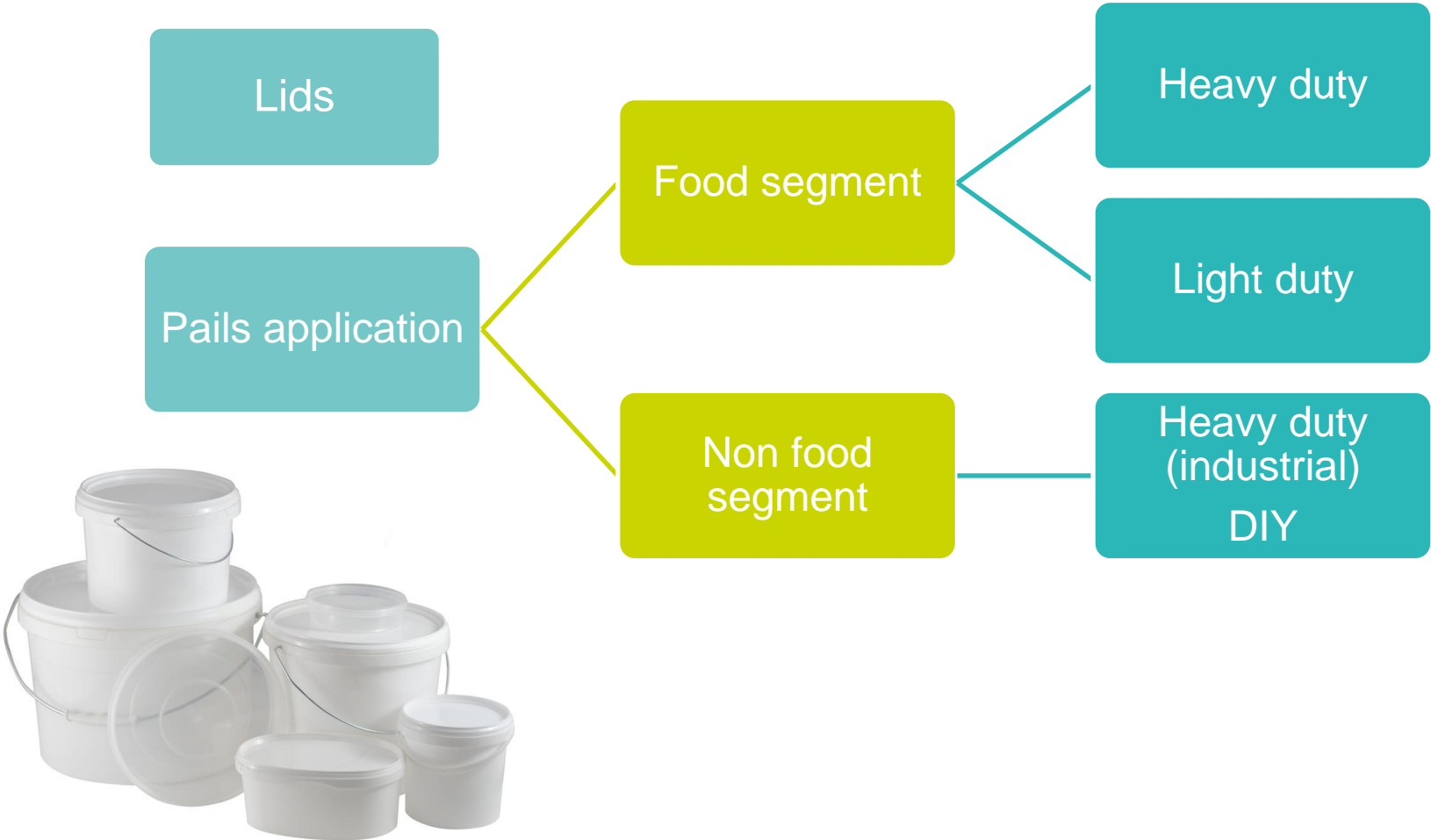


TOTAL



POLYPROPYLENE FOR PAILS & LIDS

PAILS APPLICATION : THE DIFFERENT SEGMENTS



WHY PP FOR PAILS :FOOD / NON FOOD PACKAGING?

The main factors that influence the decision of food packaging materials are:

- Protection (Loading, transport and storage functions + safety)
- Production flexibility
- Preservation of the goods (longer shelf life)
- Weight lightening metal and glass substitution
- Sales and promotional support function



PAILS – KEY TECHNICAL REQUIREMENTS

► Resin main characteristics

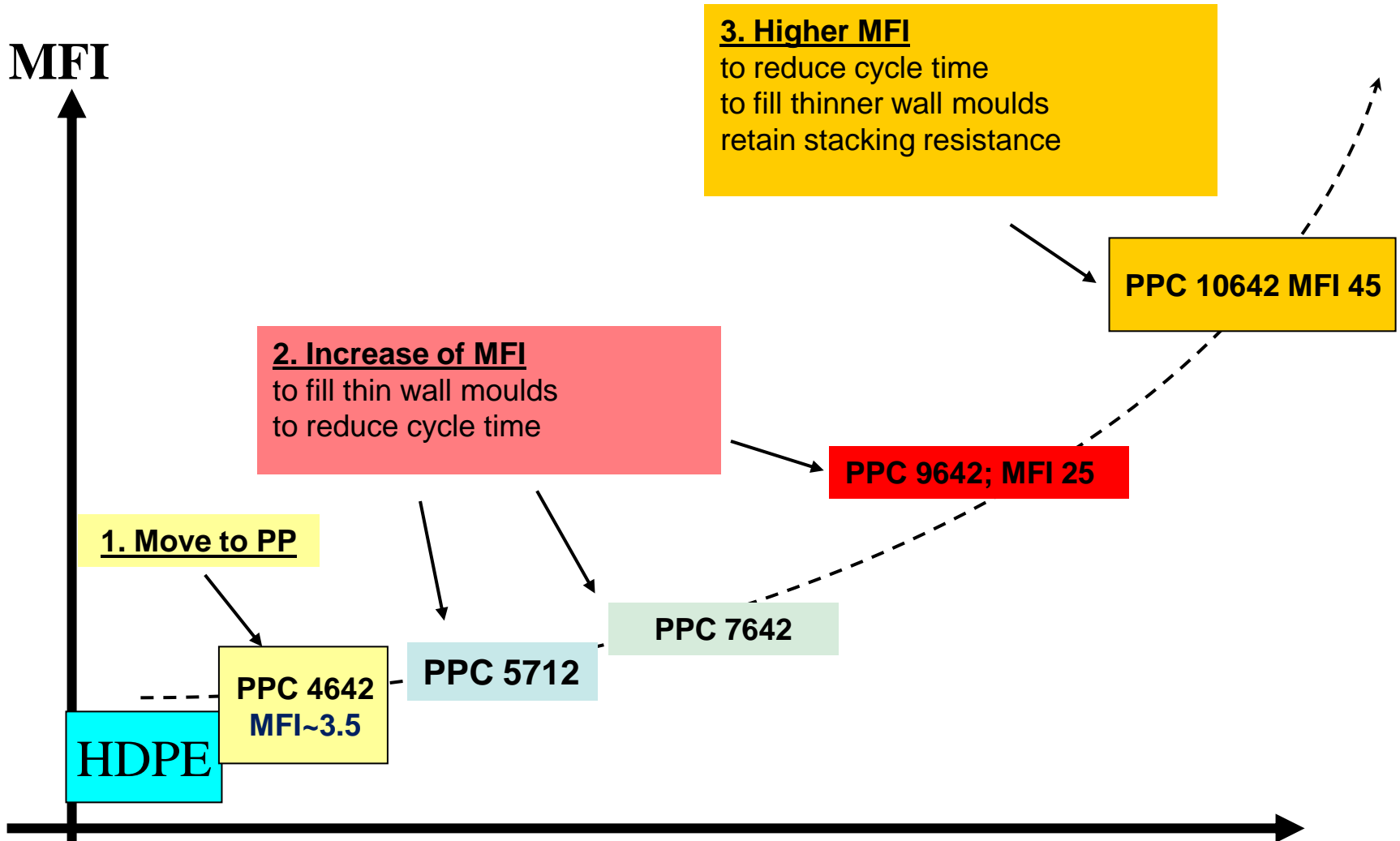
- High Stiffness (stackability)
- Impact strength (Heavy duty applications) → PPC
- Processability (Downgauging, two cavities moulds)
- Additives (A.S) easy demoulding
- Product consistency

► End product properties


- Good surface aspect
- High stiffness/impact balance for the pails
- Softness for the lids
- Printability or IML process
- UN packaging
- Transparency, coloration



RESINS FOR PAILS



PAILS – PRODUCT PORTFOLIO

- Low MFI's:
 - MFI 15, basic resins: PPC 7760, PPC 7650
 - MFI 15, good I, AS + nucleated: PPC 7642, PPC 7652
- Standard MFI range:
 - MFI 25, basic resin: PPC 9760
 - MFI 26, good I, AS + nucleated: PPC 9642
- High MFI:
 - MFI 44, good I, AS + nucleated: PPC 10642, PPC 11812 **NEW**
- For UN pails:
 - MFI 15, Very high I, Nucleated: PPC 7810
- For Lids:
 - High Impact + nucleated: PPC 7712, PPC 9712
- For transparency:
 - clarified:  PPR 7220, PPR9220
PPR10232, PPR12232
Lumicene® MR60MC2

SOME OF OUR KEY IMPACT COPOLYMERS FOR PAILS

❖ PPC 10642 mfi 44

- ❖ Low odour
- ❖ Adapted antistatic content for high mfi
- ❖ High rigidity while keeping good impact

❖ PPC 9642 mfi 25

- ❖ High rigidity, good impact
- ❖ Low odour
- ❖ High antistatic concentration

❖ PPC 11812 mfi 50 **(NEW)**

- ❖ High fluidity
- ❖ excellent impact

❖ PPC 10712: flexible lids mfi 40

- ❖ Low warpage

❖ PPC 7612: flexible lids mfi 12

- ❖ Balance stiffness / creep

❖ PPC 9712: flexible lids mfi 25

- ❖ improved impact resistance

❖ PPC 7810: UN pails

- ❖ High impact at low temperature

