
MODIFIED POLYUREA FOR WOOD PROTECTION WITHOUT NEED FOR A PRIMER

by

Alain DESCAMPE

IMEXFA

The logo for IMEXFA, consisting of the letters 'IMEXFA' in a bold, white, sans-serif font on a black rectangular background.

POLYUREA SYSTEM FORMULATOR

Initiator of polyurea technology in France in 2000

We are developing speciality polyurea systems, amongst them :

- IMEX PW for potable water, with French sanitary agreement
- IMEX 54-800 for nuclear reactor waterproofing

WOOD PROTECTION WITH POLYUREA



- ADVANTAGES
- APPLICATION EXAMPLES
- PROBLEM LINKED
- SOLUTION PROPOSED

WOOD PROTECTION WITH POLYUREA



MANY ADVANTAGES :

A polyurea skin will :

- protect the wood against :
 - chocks
 - abrasion
 - mechanical damages
- Transform the wood into a longer life waterproof media

WOOD PROTECTION WITH POLYUREA



ADVANTAGES :

a polyurea skin will :

- Allow USE OF POORER WOOD qualities
- KEEP WOOD'S ADVANTAGES - erase inconveniences
- allow new concepts, specially in the construction field

WOOD PROTECTION WITH POLYUREA

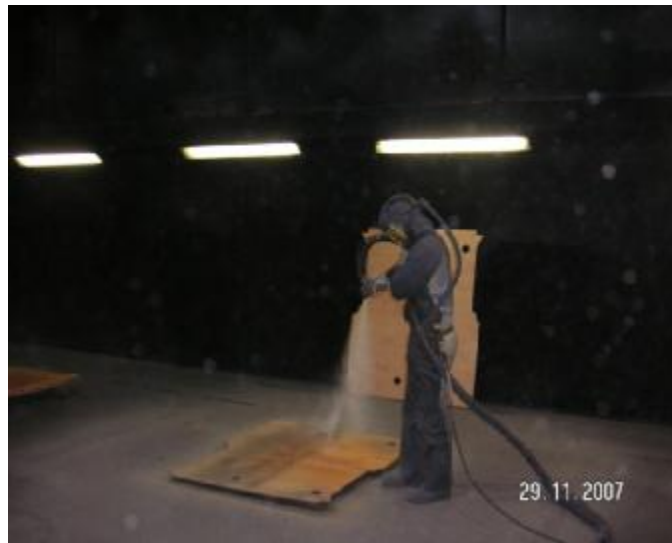


MANY ADVANTAGES :

polyurea FAST SETTING

- increase productivity
- lower working spaces requirement

WOOD PROTECTION WITH POLYUREA



Truck & car industry

WOOD PROTECTION WITH POLYUREA



Quieter trucks for noise reduction in night deliveries

WOOD PROTECTION WITH POLYUREA



Loudspeakers
protection

WOOD PROTECTION WITH POLYUREA



Container transformation into habitation, prison,...

WOOD PROTECTION WITH POLYUREA



Didden Village - Rotterdam
by MVRDV architect designer

STD. FAST SETTING POLYUREA IN WOOD PROTECTION



PROBLEM LINKED TO FAST SETTING POLYUREA SPRAY ON WOOD

Fast setting +
exotherm



pinholes

STD. FAST SETTING POLYUREA IN WOOD PROTECTION



STD. FAST SETTING POLYUREA IN WOOD PROTECTION



SOLUTIONS TO AVOID PINHOLES

- install a primer : **price - time - space**
- use better wood quality : **price**
- or something else...

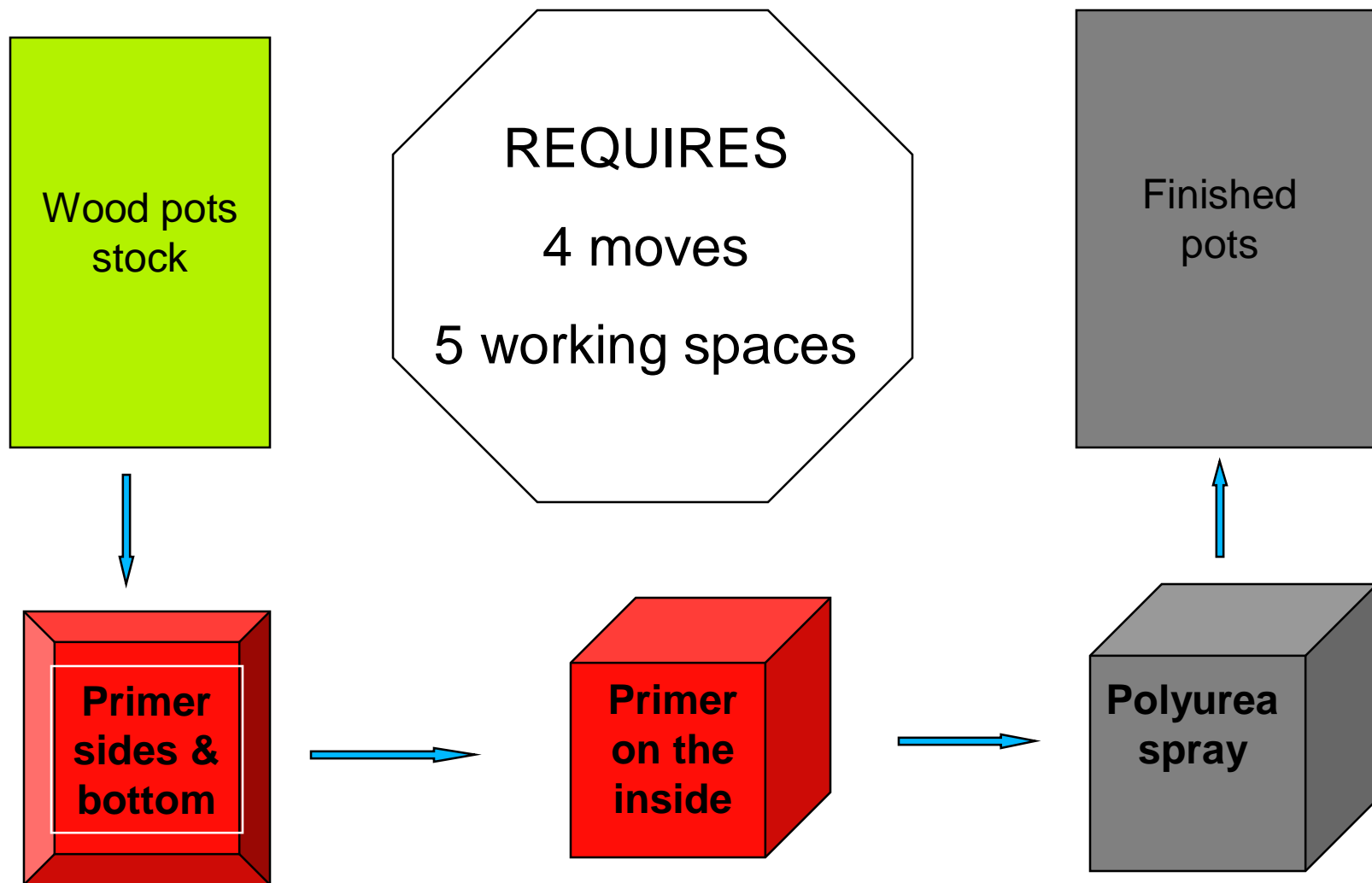
STD. FAST SETTING POLYUREA IN WOOD PROTECTION



What are the implications of a primer requirement?

Let's take the simple project
of flower pots fabrication

FLOWER POT FABRICATION PROJECT



11W MODIFIED POLYUREA TO UNLOCK PRIMER NEED



We have developed a modified polyurea with characteristics similar to a standard polyurea :

- Gel times 10 sec
- Tack free 30 sec
- elongation above 300%
- tensile strength above 18 mpa

11W MODIFIED POLYUREA TO UNLOCK PRIMER NEED



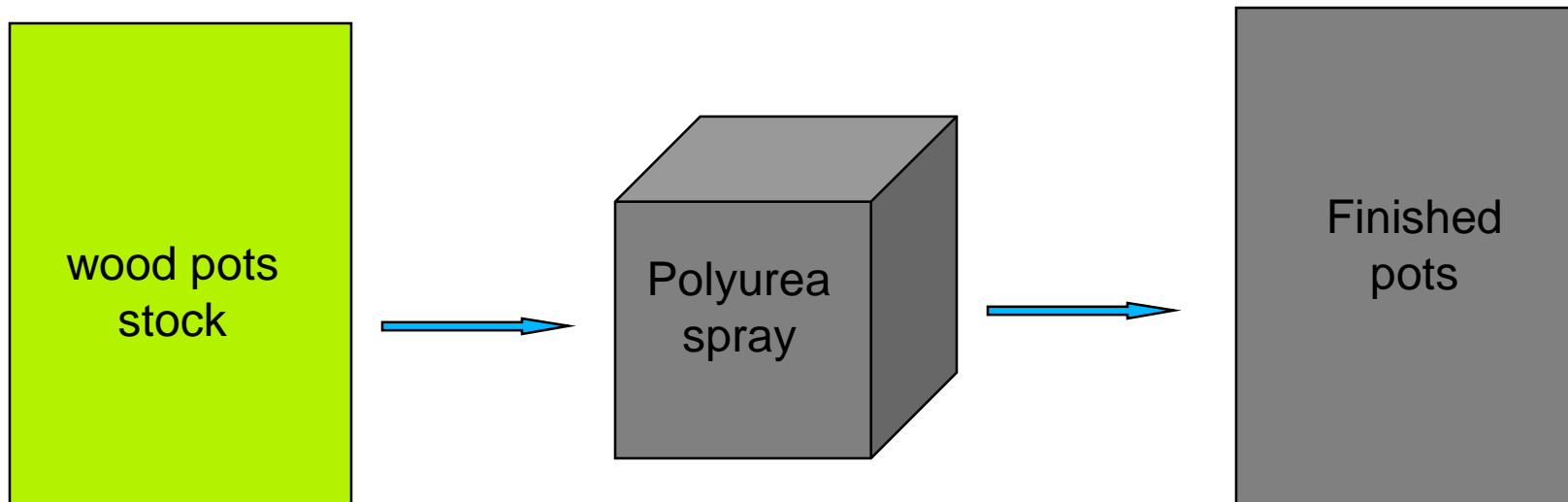
RESULTING PERFORMANCES :

- spray easy like a paint
- no plugging of the spray gun
- **no pinholes when sprayed on wood**

FLOWER POT FABRICATION PROJECT WITH 11W MODIFIED POLYUREA



REQUIRES
2 moves
3 working spaces



FLOWER POT FABRICATION PROJECT WITH 11W MODIFIED POLYUREA



PDA Europe 2010 Annual Conference - It's Time to Polyurea - Sitges, 15-17 November

STANDARD POLYUREA VERSUS WITH 11W MODIFIED POLYUREA IN WOOD PROTECTION



STD POLYUREA



11W MODIFIED POLYUREA

THANK YOU !



ANY
QUESTIONS ?

IMEXFA