

SUCCESSFULLY COMPRESS: IBUPROFEN

Overview:

DISCOVERED IN 1961 BY STEWART ADAMS AND JOHN NICHOLSON WHILE WORKING AT BOOTS UK (IN NOTTINGHAM), IBUPROFEN IS A NON-STEROIDAL ANTI-INFLAMMATORY DRUG (NSAID). IT IS AVAILABLE AS A GENERIC MEDICINE UNDER A VARIETY OF TRADE NAMES, INCLUDING NUROFEN, ADVIL, AND MOTRIN.

IBUPROFEN IS USED TO TREAT PAIN, FEVER AND INFLAMMATION. TYPICAL USES ARE FOR HEADACHES, TOOTH ACHE, BACK PAIN, MENSTRUAL PERIODS, MIGRAINES, RHEUMATOID ARTHRITIS, OR MINOR INJURY.

ALTHOUGH IT CAN BE TAKEN INSTANTANEOUSLY, IT IS MOST COMMONLY TAKEN IN THE FORM OF A TABLET AND CAN BE TAKEN BY CHILDREN WHO ARE AT LEAST 6 MONTHS OLD, AND ADULTS.



REPORTED PROBLEMS:



STICKING

Sticking is the biggest reported problem with ibuprofen. This is due to its low melting point which means ibuprofen is particularly susceptible to moisture.



PICKING

If the tablet has embossing on it, picking issues arise due to the same reason as sticking.



PRESS DOWNTIME

Due to the associated issues with sticking & picking, tools need to come out of the press to be cleaned.



WEAR / ABRASION

Abrasion is likely to occur due to high volume production output and high forces to solve sticking issues.

CONTACT US:

- www.tablettingscience.com
- info@iholland.co.uk
- +44 115 972 6153

COMPRESSING: IBUPROFEN

As with any product formulation, Ibuprofen provides its own challenges for tablet manufacturers. That being said, there is also a strong list of solutions to help achieve your optimum tablet production efficiency.



Reported problems:

- Sticking & picking
- Reduced press speed & output
- Excessive wear due to high volume of production & high forces to solve sticking issues



Recommended solutions:

- eXtended Dwell Flat (XDF)
- TSAR~Predict
- PharmaCote® CT, EC^{xtra}, CN+



Partner with us

With over 75 years in the industry, I Holland is the longest established tool manufacturer in the world. Working in partnership with our clients has helped us to build our repertoire of proven solutions that will help you to achieve smooth tablet production.

IN-DEPTH LOOK CASE STUDY:



Tablet: Round
Size & Dosage: 400mg
Press type: Manesty/
Bosch Xpress 500. 39 stations



Problem: Over 10 months, approximately 9% of production time was reported lost due to tablet press downtime caused by sticking & picking issues. The team wanted to run trials to see what coatings may improve their situation.



Solution: I Holland supplied 3 sets of coated tooling for trials. 6 stations each of PharmaCote® CT, EC, CN+. We matched a like for like copy of the current suppliers tablet drawings for consistency. The main aim of the trials was to challenge the press speed where no signs of sticking or picking occurred.



Success: PharmaCote® CT performed very well and succeeded the 2 hour target by far, with no sticking issues! Trials were run with a higher hardness range, and PharmaCote® CT was proven successful again for this formulation.

CONTACT US:

- www.tablettingscience.com
- info@iholland.co.uk
- +44 115 972 6153