- SPECIALITY COFFEE ROASTERS -



WHY AND HOW WE REST OUR COFFEE AND THE EFFECTS OF INCORRECT RESTING

COFFEE ROASTING CREATES CO2

During the roasting of coffee, thermally driven chemical reactions lead to the formation of gases, of which a large fraction is carbon dioxide (CO₂). Part of these gases is released during

roasting while part is retained inside the porous structure of the roasted beans and is steadily released during storage or more abruptly during grinding and extraction.

The release of CO₂ during the various phases from roasting to consumption is linked to many important properties and characteristics of coffee. It is an indicator for freshness, plays an important role in



shelf life and in packaging, impacts the extraction process, is involved in crema formation, and may affect the sensory profile in the cup. Indeed, and in view of the multiple roles it plays, CO₂ is a much under appreciated and little examined molecule in coffee.

WHY OFF GASSING IS CRITICAL

After roasting we must ensure that CO₂ can easily be released from the beans. The ideal way is to store coffee in a coffee bag with a one-way valve with the bag **standing upright**. As the coffee is off gassing the CO₂ is released and the CO₂ forces any oxygen out of the bag. CO₂ is heavier than O₂ and will create a protective layer on top of the coffee beans preventing the oxygen from oxidising the coffee beans.

CARBONIC ACIDS DUE TO EXCESSIVE CO₂

If the coffee is not able to off gas then the excessive CO_2 in the coffee beans will bind with H_2O during extraction and create H_2CO_3 which is carbonic acid. This has a sharp

bitter taste. This is why we recommend resting coffee but resting is more than just waiting. It is important that the coffee is stored inside the coffee bags and that the bags are <u>kept upright</u>. Stacking the coffee bags on top of each other can block the valve and the pressure of the bags on top of each other prevent correct off gassing. Placing coffee beans in the grinder hopper allows the coffee beans to continue off gassing. There will again be a protective layer of CO₂ on top of the coffee beans inside the hopper. The bottom of the grinder will allow some oxygen to enter the environment so whilst this is not ideal, placing coffee



beans in a hopper will speed up the off gassing period. Avoid taking off the lid of the grinder as this will cause a turbulence an increase risk of oxidation.

HOW WE OFF GAS

When we roast coffee we rest the roasted coffee in resting bins for a certain time. We do this before we pack the coffee in bags. This allows the majority of the CO₂ to



escape before we pack. With this method we have found that even after the 24 hours the espresso is palatable but not ideal just yet – it still needs to rest. Once you have received the coffee and serve it, the coffee should be completely rested.

STACKING COFFEE AT THE LIMINI ROASTERY After resting the coffee in bins, we store coffee on our shelves. Due to logistics we stack the coffee. If we were to keep coffee bags upright

then they would swell. This swelling would make it difficult to pack and could make the bags burst in transit.

HOW WE RECOMMEND YOU STORE YOUR COFFEE

When you receive your delicious coffee please ensure that you keep the coffee upright on your shelves.