

# Buongiorno

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **30**
- SRM **4.5**
- Style **Bohemian Pilsener**

## Batch size

- Expected quantity of finished beer **70 liter(s)**
- Trub loss **5 %**
- Size with trub loss **77 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **96.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **57 liter(s)**
- Total mash volume **76 liter(s)**

## Steps

- Temp **64 C**, Time **90 min**

## Mash step by step

- Heat up **57 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Sparge using **58.6 liter(s)** of **76C** water or to achieve **96.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Malting - Pilsneński 6-rzędowy	18 kg (94.7%)	80 %	5
Grain	Weyermann - Light Munich Malt	1 kg (5.3%)	82 %	14

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	East Kent Goldings	50 g	15 min	5.8 %
Aroma (end of boil)	Challenger	50 g	15 min	7 %
Aroma (end of boil)	Magnum	125 g	15 min	11.5 %
Dry Hop	Hallertau Mittelfruh	80 g	3 day(s)	3 %
Dry Hop	Hallertau hersbrucker	80 g	3 day(s)	3 %
Dry Hop	Hallertau Mittelfruh	80 g	1 day(s)	3 %
Dry Hop	Hallertau hersbrucker	80 g	1 day(s)	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Fermentis w34/70	Lager	Dry	100 g	Zadać do brzezki o temperaturze 10, po 12 h do 11 stopni, przy 5 blog do 13 stopni
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## Notes

- Modyfikacje wody i pH  
pH do zacieru 5,2-5,3 modyfikujemy kwasem mlekowym, woda do filtracji 5,5-6 pH  
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