

# Słodko-Gorzka Pomarancza

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **11**
- SRM **3.4**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **18.9 liter(s)**

## Steps

- Temp **63 C**, Time **45 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **69.7C**
- Add grains
- Keep mash **45 min** at **63C**
- Sparge using **20.5 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pszeniczny Weyermann	1.3 kg (25%)	82 %	5
Grain	Słód Pilsner® 2,5-4,5 EBC Weyermann	3.2 kg (61.5%)	80 %	4
Adjunct	Płatki owsiane	0.3 kg (5.8%)	60 %	3
Adjunct	Płatki pszeniczne	0.4 kg (7.7%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition	12 g	60 min	4.2 %
Aroma (end of boil)	Izabella	10 g	10 min	5.1 %
Boil	Hallertau Tradition	15 g	30 min	4.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Brewferm Blanche	Wheat	Dry	11 g	Brewferm

## Extras

Type	Name	Amount	Use for	Time
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Spice	skorka gorzkiej pomaranczy	20 g	Boil	10 min
Spice	kolendra mielona	10 g	Boil	10 min
Spice	skórka słodkiej pomarancza	20 g	Boil	10 min

## Notes

- przerwa 63oC 45min  
przerwa 72oC 10 min  
mashout 78oC 2min  
27l bfg 11,2 plato przeg gotowaniem  
12,5 bfg po gotowaniu 19l  
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