

Kwaśna Hela

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **20**
- SRM **4.5**
- Style **Fruit Beer**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **13.5 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **10.8 liter(s)** of strike water to **67.3C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **7.1 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	1 kg (37%)	85 %	7
Grain	BESTMALZ - Best Pilsen	1 kg (37%)	80.5 %	4
Grain	BESTMALZ - Best Wheat Malt	0.5 kg (18.5%)	82 %	4
Grain	Abbey Malt Weyermann	0.1 kg (3.7%)	75 %	45
Grain	Weyermann - Acidulated Malt	0.1 kg (3.7%)	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	10 g	60 min	8 %
Boil	Oktawia	15 g	5 min	8 %

Yeasts

Name	Type	Form	Amount	Laboratory
L. Plantarum	Ale	Slant	1100 ml	starter z 6x Sanprobi IBS

WLP001 - California Ale Yeast	Ale	Slant	50 ml	White Labs
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Extras

Type	Name	Amount	Use for	Time
Flavor	Czarna porzeczka	1200 g	Secondary	7 day(s)