

## Full Aroma Hops (Sorachi Ace)

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **52**
- SRM **8.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **11.3 liter(s)**
- Total mash volume **15.4 liter(s)**

### Steps

- Temp **40 C**, Time **1 min**
- Temp **61 C**, Time **10 min**
- Temp **71 C**, Time **45 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **11.3 liter(s)** of strike water to **43.6C**
- Add grains
- Keep mash **1 min** at **40C**
- Keep mash **10 min** at **61C**
- Keep mash **45 min** at **71C**
- Keep mash **10 min** at **75C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (98.8%)	81 %	4
Grain	Strzegom Barwiący	0.05 kg (1.2%)	68 %	1300

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sorachi Ace	30 g	60 min	10 %
Boil	Sorachi Ace	30 g	15 min	10 %
Dry Hop	Sorachi Ace	30 g	7 day(s)	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10.95 g	Safale

### Notes

- wersja zabarwiona  
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