

## #45 Walter White

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- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **48**
- SRM **4.3**
- Style **White IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5.2 kg (86.7%)	81 %	4
Grain	Pszeniczny	0.4 kg (6.7%)	85 %	4
Grain	Żytni	0.4 kg (6.7%)	85 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	40 g	37 min	8.7 %
Aroma (end of boil)	Equinox	24 g	5 min	13.1 %
Aroma (end of boil)	Hallertau Blanc	28 g	5 min	11 %
Aroma (end of boil)	Sorachi Ace	24 g	5 min	13 %
Whirlpool	Equinox	20 g	0 min	13.1 %
Whirlpool	Hallertau Blanc	28 g	0 min	11 %
Whirlpool	Sorachi Ace	20 g	0 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US 05	Ale	Slant	10 ml	---

### Extras

Type	Name	Amount	Use for	Time
Herb	Sencha EG	43.2 g	Secondary	48 day(s)