

## MAC-11

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- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **43**
- SRM **3.3**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.4 liter(s)**
- Total mash volume **11.2 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzniejszy	2.4 kg (85.7%)	80 %	4
Grain	Pszeniczny	0.25 kg (8.9%)	85 %	4
Grain	Płatki owsiane	0.11 kg (3.9%)	60 %	3
Grain	Weyermann - Carapils	0.04 kg (1.4%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	30 min	10.3 %
Whirlpool	Cascade PL	22 g	0 min	5.2 %
Whirlpool	Mosaic	22 g	0 min	12.3 %
Whirlpool	Amarillo	22 g	0 min	9.5 %
Dry Hop	Cascade PL	28 g	4 day(s)	5.2 %
Dry Hop	Mosaic	28 g	4 day(s)	12.3 %
Dry Hop	Amarillo	28 g	4 day(s)	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis