

## 45 IPA

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- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **62**
- SRM **6.9**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	7 kg (87.5%)	80.5 %	4
Grain	Strzegom Monachijski typ I	0.8 kg (10%)	79 %	16
Grain	carmel Aromatic	0.2 kg (2.5%)	75 %	180

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Apollo	10 g	20 min	17 %
Boil	Columbus/Tomahawk/Zeus	50 g	10 min	10 %
Aroma (end of boil)	Citra	40 g	0 min	12 %
Whirlpool	Chinook	50 g	20 min	10 %
Whirlpool	Simcoe	50 g	20 min	13.2 %
Whirlpool	Citra	50 g	20 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11 g	---