

## English IPA v3 #56

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **52**
- SRM **7.3**
- Style **English IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3.28 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **26.1 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **70.7C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Bestmalz - pilzneński	5 kg (82%)	80.5 %	4
Grain	Bestmalz - Caramelpils	0.1 kg (1.6%)	75 %	5
Grain	Bestmalz - monachijski I	0.75 kg (12.3%)	80 %	16
Grain	Chateau - Crystal	0.25 kg (4.1%)	78 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	16 g	60 min	14.7 %
Aroma (end of boil)	Columbus	31.3 g	15 min	12.5 %
Aroma (end of boil)	East Kent Goldings	40 g	10 min	4.5 %
Aroma (end of boil)	Mandarina Bavaria	40 g	5 min	7.6 %
Aroma (end of boil)	Fuggles	50 g	1 min	4.5 %
Dry Hop	East Kent Goldings	60 g	4 day(s)	4.5 %
Dry Hop	Mandarina Bavaria	60 g	4 day(s)	7.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	210 ml	Fermentum Mobile
ponad miesięczna gęstwa				

### Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	5 g	Mash	---
Water Agent	chlorek wapnia [ml]	3.44 g	Mash	---
Water Agent	kwask mlekowy 80% [ml]	3.77 g	Mash	---
Water Agent	sól epsom	3 g	Mash	---
Fining	mech irlandzki	3 g	Boil	5 min