

## Działkowe IPA (Castle Pale Ale)

- Gravity **12.1 BLG**
- ABV ---
- IBU **36**
- SRM **6.3**
- Style **American 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 **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

### Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **13.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	3.7 kg (84.1%)	80 %	8
Grain	Caramunich® typ I	0.2 kg (4.5%)	73 %	80
Grain	Weyermann pszeniczny jasny	0.5 kg (11.4%)	80 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	10 g	50 min	13.2 %
Boil	Simcoe	15 g	20 min	13.2 %
Aroma (end of boil)	Cascade DE	20 g	10 min	7.1 %
Dry Hop	Cascade DE	80 g	7 day(s)	7.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP001 - California Ale Yeast	Ale	Liquid	40 ml	White Labs

### Extras

Type	Name	Amount	Use for	Time
Fining	Irish Moss	5 g	Boil	10 min