

Grand Champion

- Gravity **17.1 BLG**
- ABV ---
- IBU **99**
- SRM **8.6**
- Style **Imperial IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.61 liter(s) / kg**
- Mash size **16.7 liter(s)**
- Total mash volume **23.1 liter(s)**

Steps

- Temp **55 C**, Time **0 min**
- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **4 min**

Mash step by step

- Heat up **16.7 liter(s)** of strike water to **61.7C**
- Add grains
- Keep mash **0 min** at **55C**
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **4 min** at **77C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.8 kg (69.6%)	81 %	4
Grain	Weyermann pszeniczny jasny	0.7 kg (10.1%)	80 %	6
Grain	Strzegom Monachijski typ I	0.7 kg (10.1%)	79 %	16
Grain	Cara Gold Castlemalting	0.2 kg (2.9%)	78 %	120
Sugar	Cukier	0.5 kg (7.2%)	--- %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Boil	Columbus/Tomahawk/Zeus	20 g	30 min	15.5 %
Boil	Simcoe	20 g	20 min	13 %
Boil	Citra	20 g	15 min	12 %
Boil	Centennial	20 g	15 min	10.5 %
Boil	CUKIER	1 g	15 min	1 %

Boil	Ahtanum	20 g	5 min	5 %
Boil	Amarillo	20 g	2 min	9.5 %
Boil	Simcoe	20 g	1 min	13 %
Dry Hop	Columbus/Tomahawk/Zeus	40 g	6 day(s)	15.5 %
Dry Hop	Citra	40 g	6 day(s)	12 %
Dry Hop	Amarillo	40 g	6 day(s)	9.5 %
Dry Hop	Simcoe	40 g	6 day(s)	13 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - American Ale	Ale	Liquid	30 ml	Wyeast Labs