

AAA Christmas Ale

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **32**
- SRM **14.9**
- Style **American Amber Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **29.9 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.2 liter(s)**
- Total mash volume **20.2 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2.1 kg (41.6%)	79 %	6
Grain	Strzegom Pilzneński	1.65 kg (32.7%)	80 %	4
Grain	Słód pszeniczny Bestmalz	0.9 kg (17.8%)	82 %	5
Grain	Karmelowy Pszeniczny Strzegom	0.25 kg (5%)	79 %	600
Grain	red crystal	0.15 kg (3%)	71.3 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	15 g	30 min	12 %
Boil	Citra	15 g	30 min	13.5 %
Boil	Mosaic	25 g	1 min	12 %
Boil	Citra	25 g	1 min	13.5 %

Yeasts

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

Extras

Type	Name	Amount	Use for	Time
Spice	kolędra	10 g	Boil	30 min
Spice	Kardamon	4 g	Boil	15 min
Spice	Imbir	5 g	Boil	15 min
Spice	Cynamon	6 g	Boil	15 min