

United Red APAcz

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **28**
- SRM **11.8**
- Style **American Amber Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **1 %**
- Size with trub loss **20.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **24.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **20.9 liter(s)**

Steps

- Temp **65 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.2 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **20 min** at **65C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Red Activ 30-40	1 kg (21.6%)	80 %	35
Grain	Strzegom Pilzneński	3 kg (64.7%)	80 %	4
Grain	Strzegom Czekoladowy jasny	0.2 kg (4.3%)	68 %	400
Grain	Strzegom Cooke 40-60	0.2 kg (4.3%)	72 %	50
Grain	Weyermann - Acidulated Malt	0.135 kg (2.9%)	80 %	6
Grain	Płatki jęczmienne	0.1 kg (2.2%)	80 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	10 g	60 min	9.5 %
Boil	Cascade	10 g	30 min	6 %
Boil	Amarillo	10 g	30 min	9.5 %
Aroma (end of boil)	Cascade	10 g	5 min	6 %
Aroma (end of boil)	Amarillo	10 g	5 min	9.5 %
Dry Hop	Cascade	20 g	5 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Fining	Isinglass Fining	10 g	Secondary	3 day(s)