

APA Radość

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **43**
- SRM **6.9**
- Style **American Pale Ale**

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 **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3 kg (60%)	85 %	7
Grain	Strzegom Monachijski typ I	0.5 kg (10%)	79 %	16
Grain	Płatki owsiane	0.5 kg (10%)	85 %	3
Grain	Karmelowy Jasny 30EBC	1 kg (20%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	30 g	60 min	13.2 %
Whirlpool	Simcoe	20 g	0 min	13.2 %
Dry Hop	Mosaic	50 g	5 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	10 g	---