

Apa z malinami

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **17**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **550 liter(s)**
- Trub loss **2 %**
- Size with trub loss **561 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **617.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **360 liter(s)**
- Total mash volume **480 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **78 C**, Time **15 min**
- Temp **72 C**, Time **40 min**

Mash step by step

- Heat up **360 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **377.9 liter(s)** of **76C** water or to achieve **617.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	90 kg (75%)	80 %	4
Grain	Słód pszeniczny	16 kg (13.3%)	82 %	5
Grain	Monachijski	14 kg (11.7%)	80 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	500 g	60 min	4.5 %
Boil	Saaz (Czech Republic)	500 g	30 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Us-05	Ale	Dry	500 g	Fermentis