

APA 13 BLG # 71

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **35**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (87.7%)	81 %	4
Grain	Karmelowy Jasny 30EBC	0.5 kg (8.8%)	75 %	30
Grain	Słód Owsiany	0.2 kg (3.5%)	61 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	30 g	45 min	10.5 %
Whirlpool	Amarillo	15 g	10 min	9.5 %
Whirlpool	Simcoe	15 g	10 min	13.2 %
Dry Hop	Amarillo	15 g	4 day(s)	9.5 %
Dry Hop	Simcoe	15 g	4 day(s)	13.2 %
Dry Hop	Cascade	30 g	4 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	300 ml	Fermentis