

# Nowodworska GAPA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **36**
- SRM **7.2**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **1 %**
- Size with trub loss **20.2 liter(s)**
- Boil time **75 min**
- Evaporation rate **5 %/h**
- Boil size **22.5 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.33 liter(s) / kg**
- Mash size **15.1 liter(s)**
- Total mash volume **19.6 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15.1 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **22.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	1.23 kg (27.2%)	81 %	5
Grain	Viking Pale Ale malt	3 kg (66.2%)	80 %	5
Grain	Strzegom Karmel 150	0.3 kg (6.6%)	75 %	130

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	60 min	12 %
Boil	Citra	10 g	30 min	12 %
Aroma (end of boil)	Citra	15 g	5 min	12 %
Boil	Tettnang	10 g	60 min	4 %
Boil	Tettnang	5 g	30 min	4 %
Dry Hop	Tradition	10 g	7 day(s)	5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis