

# XIX warka PIPA 2.0

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **38**
- SRM **3.8**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **15.4 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.5 liter(s)**

## Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **19.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (100%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	10 %
Aroma (end of boil)	Marynka	15 g	20 min	10 %
Aroma (end of boil)	Sybilla	30 g	20 min	3.5 %
Whirlpool	Sybilla	30 g	5 min	3.5 %
Dry Hop	Sybilla	40 g	3 day(s)	3.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	30 ml	Fermentum Mobile