

# Urodzinowe dla rodziców

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **3.6**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.7 liter(s)**

## Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

## Steps

- Temp **67 C**, Time **666 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **666 min** at **67C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (100%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	10 g	50 min	5.1 %
Boil	Marynka	10 g	50 min	8.4 %
Boil	East Kent Goldings	10 g	20 min	5.1 %
Boil	Marynka	10 g	20 min	8.4 %
Boil	East Kent Goldings	22 g	5 min	5.1 %
Boil	Marynka	3.5 g	5 min	8.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar BRY-97	Ale	Dry	11 g	danstar

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	10 min