

# Pils - Dupa Maryni

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **48**
- SRM **4.1**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **22 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.5 kg (87.5%)	81 %	4
Grain	Monachijski	0.5 kg (12.5%)	80 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Boil	Marynka	20 g	30 min	10 %
Boil	Lublin (Lubelski)	30 g	5 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M84 Bohemian Lager	Lager	Dry	11 g	Mangrove Jack's
Gozdawa czech pilsner	Lager	Dry	11 g	Gozdawa

## Extras

Type	Name	Amount	Use for	Time
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Fining	Wirfloc	2 g	Boil	5 min
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