

## Będzie do gryla

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **29**
- SRM **5.8**
- Style **Premium American Lager**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

### Steps

- Temp **55 C**, Time **1 min**
- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **1 min** at **55C**
- Keep mash **20 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **22.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (83.3%)	82 %	4
Grain	Strzegom Monachijski typ I	0.6 kg (12.5%)	79 %	16
Grain	Strzegom Karmel 150	0.2 kg (4.2%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	12 g	60 min	12.7 %
Aroma (end of boil)	Simcoe	15 g	10 min	13.2 %
Aroma (end of boil)	Simcoe	15 g	1 min	13.2 %
Aroma (end of boil)	Citra	15 g	10 min	12 %
Aroma (end of boil)	Citra	15 g	1 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Lalbrew Diamond Lager	Lager	Slant	300 ml	Lallemand
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### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	15 min