

# List Żelazny

- Gravity **27.2 BLG**
- ABV **13 %**
- IBU **46**
- SRM **59.9**
- Style **Russian Imperial Stout**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **180 min**
- Evaporation rate **10 %/h**
- Boil size **15 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **20.5 liter(s)**

## Steps

- Temp **66.6 C**, Time **90 min**

## Mash step by step

- Heat up **14.6 liter(s)** of strike water to **75.9C**
- Add grains
- Keep mash **90 min** at **66.6C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **15 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (42.7%)	80 %	5
Grain	Strzegom Monachijski typ I	1.75 kg (29.9%)	79 %	16
Grain	Jęczmień palony	0.3 kg (5.1%)	55 %	1200
Grain	Strzegom Karmel 300	0.5 kg (8.5%)	70 %	299
Grain	Płatki owsiane	0.2 kg (3.4%)	85 %	3
Grain	Płatki pszeniczne	0.2 kg (3.4%)	85 %	3
Grain	Płatki Jęczmienne	0.2 kg (3.4%)	85 %	3
Grain	Strzegom Czekoladowy 1200	0.2 kg (3.4%)	68 %	1202

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Progress	30 g	90 min	6.6 %
Boil	Marynka	15 g	90 min	7.7 %
Aroma (end of boil)	Marynka	15 g	10 min	7.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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WLP004 - Irish Ale Yeast	Ale	Liquid	35 ml	White Labs
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### Notes

- Przy butelkowaniu oprócz cukru dodać łyżkę mocnej gęstwy.  
*Aug 20, 2017, 5:38 PM*