

# List Źelazny

- 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 |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                          |     |        |       |            |
|--------------------------|-----|--------|-------|------------|
| WLP004 - Irish Ale Yeast | Ale | Liquid | 35 ml | White Labs |
|--------------------------|-----|--------|-------|------------|

### Notes

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