### 分析流程 数据源： 假设检验.csv 算法配置： 算法： 列联（交叉）分析 变量： 分组变量：{ 树脂含量 }；变量X：{ 断裂强力，断裂伸长率，撕裂强力，透气率，透湿率，柔软度，急弹角度 } 分析结果： 列联交叉分析基于数据汇总统计产生结果，请看详细结论。

### 分析步骤 1. 根据列联标分析进行变量的分组描述，若分析项为定量变量，系统默认以四分位进行分组。 2. 可以根据交叉图结合类别的百分比进行描述。

### 详细结论

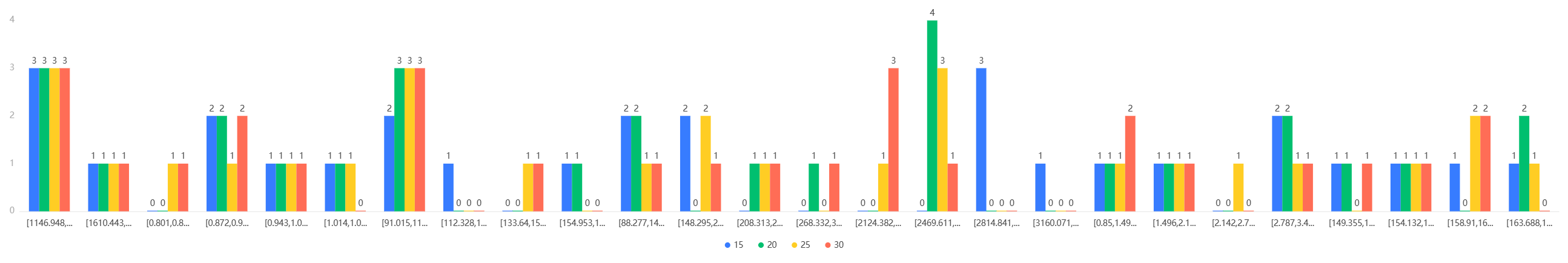
**输出结果1：列联表**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 题目 | 名称 | 树脂含量 | | | | 总计 |
| 15 | 20 | 25 | 30 |
| 断裂强力 | [1146.948,1301.446) | 3(25%) | 3(25%) | 3(25%) | 3(25%) | 12 |
| [1610.443,1764.942] | 1(25%) | 1(25%) | 1(25%) | 1(25%) | 4 |
| 总计 | | 4 | 4 | 4 | 4 | 16 |
| 断裂伸长率 | [0.801,0.872) | 0(0%) | 0(0%) | 1(50%) | 1(50%) | 2 |
| [0.872,0.943) | 2(28.571%) | 2(28.571%) | 1(14.286%) | 2(28.571%) | 7 |
| [0.943,1.014) | 1(25%) | 1(25%) | 1(25%) | 1(25%) | 4 |
| [1.014,1.086] | 1(33.333%) | 1(33.333%) | 1(33.333%) | 0(0%) | 3 |
| 总计 | | 4 | 4 | 4 | 4 | 16 |
| 撕裂强力 | [91.015,112.328) | 2(18.182%) | 3(27.273%) | 3(27.273%) | 3(27.273%) | 11 |
| [112.328,133.64) | 1(100%) | 0(0%) | 0(0%) | 0(0%) | 1 |
| [133.64,154.953) | 0(0%) | 0(0%) | 1(50%) | 1(50%) | 2 |
| [154.953,176.266] | 1(50%) | 1(50%) | 0(0%) | 0(0%) | 2 |
| 总计 | | 4 | 4 | 4 | 4 | 16 |
| 透气率 | [88.277,148.295) | 2(33.333%) | 2(33.333%) | 1(16.667%) | 1(16.667%) | 6 |
| [148.295,208.313) | 2(40%) | 0(0%) | 2(40%) | 1(20%) | 5 |
| [208.313,268.332) | 0(0%) | 1(33.333%) | 1(33.333%) | 1(33.333%) | 3 |
| [268.332,328.35] | 0(0%) | 1(50%) | 0(0%) | 1(50%) | 2 |
| 总计 | | 4 | 4 | 4 | 4 | 16 |
| 透湿率 | [2124.382,2469.611) | 0(0%) | 0(0%) | 1(25%) | 3(75%) | 4 |
| [2469.611,2814.841) | 0(0%) | 4(50%) | 3(37.5%) | 1(12.5%) | 8 |
| [2814.841,3160.071) | 3(100%) | 0(0%) | 0(0%) | 0(0%) | 3 |
| [3160.071,3505.3] | 1(100%) | 0(0%) | 0(0%) | 0(0%) | 1 |
| 总计 | | 4 | 4 | 4 | 4 | 16 |
| 柔软度 | [0.85,1.496) | 1(20%) | 1(20%) | 1(20%) | 2(40%) | 5 |
| [1.496,2.142) | 1(25%) | 1(25%) | 1(25%) | 1(25%) | 4 |
| [2.142,2.787) | 0(0%) | 0(0%) | 1(100%) | 0(0%) | 1 |
| [2.787,3.433] | 2(33.333%) | 2(33.333%) | 1(16.667%) | 1(16.667%) | 6 |
| 总计 | | 4 | 4 | 4 | 4 | 16 |
| 急弹角度 | [149.355,154.132) | 1(33.333%) | 1(33.333%) | 0(0%) | 1(33.333%) | 3 |
| [154.132,158.91) | 1(25%) | 1(25%) | 1(25%) | 1(25%) | 4 |
| [158.91,163.688) | 1(20%) | 0(0%) | 2(40%) | 2(40%) | 5 |
| [163.688,168.465] | 1(25%) | 2(50%) | 1(25%) | 0(0%) | 4 |
| 总计 | | 4 | 4 | 4 | 4 | 16 |

**图表说明：**

上表展示了以树脂含量为分组项，以断裂强力、断裂伸长率、撕裂强力、透气率、透湿率、柔软度、急弹角度为分析项的列联交叉分析结果，包括变量、频数、百分比等，需要注意的是：  
● 若交叉表过大（列超过15项），请点击右上角下载按钮导出查看。  
● 若分析项为定量变量（样本量N≥8），系统默认以四分位进行分组，若想生成更多分组，请使用数据处理—>数据编码。  
● 若想分析基于分组项下，各分析项是否存在差异以及程度，可以选择卡方分析。

**输出结果2：交叉图**



**图表说明：**

上图展示了列联交叉分析结果，包括变量、频数、百分比等。

### 参考文献 [1] Scientific Platform Serving for Statistics Professional 2021. SPSSPRO. (Version 1.0.11)[Online Application Software]. Retrieved from https://www.spsspro.com. [2] 贾俊平,何晓群,金勇.统计学(第四版)[M].中国人民大学出版社,2009.