

BALINIT FORMERA

The coating solution for Advanced
High-Strength Steel forming applications

超高强度钣金成型应用的涂层解决方案



Metal Forming



BALINIT FORMERA – Developed to meet the challenges of Advanced High-Strength Steel forming

BALINIT FORMERA涂层-专门应对超高强度钣金成型的挑战

Emissions legislation and increased passenger safety require lighter, stronger vehicles. To fulfil these requirements the use of Advanced High-Strength Steel (AHSS) material and the strength of the parts made of AHSS are increasing with every new model. Tools forming AHSS parts require even stronger surface solutions to ensure high quality and productivity in these demanding applications.

排放法规和持续提高的乘客安全要求则需要更加轻便，强度更高的汽车。为了满足这些要求，超高强度钢板和高抗拉强度材料的部件在新车型上的运用不断提升。超

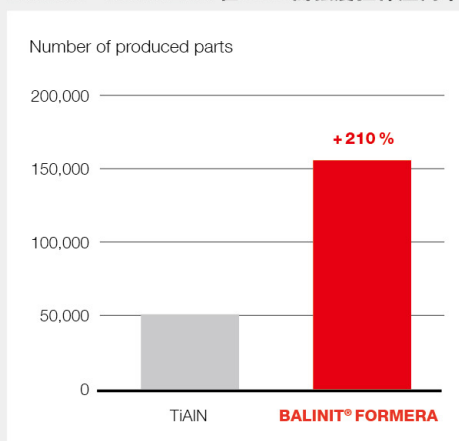
new model. Tools forming AHSS parts require even stronger surface solutions to ensure high quality and productivity in these demanding applications.

高强度钢板的成型模具需要更强的表面处理技术来确保高要求应用的优秀品质和生产力。



BALINIT® FORMERA performance in 4 mm high-strength steel drawing application

BALINIT® FORMERA 在4mm高强度拉伸应用中的性能表现



Tool 模具

Draw operation
Automotive seating
汽车座椅的深度拉伸

Workpiece 工件

4 mm HSLA steel
4mm高强度低合金

Process type 工艺类型

400 t progressive press
30 mm draw depth
400级进模, 30mm拉伸深度

Challenge 挑战

High wear in the draw die due to the use of 4 mm HSLA material
由于使用4mm的高强度低合金, 拉伸模的表面严重磨损

Solution 解决方案

- Triple tool life
- Production process stabilized
- 延长模具寿命至3倍
- 工艺流程稳定

BALINIT FORMERA was developed to meet these demanding applications

BALINIT FORMERA专为应对以下挑战

- Tough drawing and flanging operations
Material yield strength > 500 MPa
or sheet metal thickness > 1.5 mm
压力大于500Mpa, 厚度大于1.5mm的钢板拉伸和翻边
- High-strength steel applications:
高强度钢板应用
 - Deep drawing of AHSS
超高强度钢板的深拉
 - Flanging of AHSS
超高强度钢板的翻边
 - Trimming of AHSS
超高强度钢板的修边

Take advantage of outstanding coating properties

卓越的涂层性能

	BALINIT® FORMERA
Coating material 涂层材料	CrAlN-based
Coating hardness H_{rr} (GPa) 涂层硬度	28 ± 2
Coefficient of friction (dry) vs. steel 对钢的摩擦系数 (干)	0.35
Max. coating temperature (°C) 最高涂层温度 (°C)	480
Coating colour 涂层颜色	silver-light grey 浅银灰色

All given data are approximate values and dependent on application, environment and test conditions.
以上所有数值都为近似值, 实际值基于具体应用, 环境和测试条件

Benefit from the BALINIT FORMERA coating solutions

Contact us now

体验BALINIT FORMERA涂层, 即刻与我们联系

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