汽 车 涂 料

Automotive Coatings

电话：0538-7459777
传真：0538-7433747
网址：www.lebangqiye.cn
地址：山东省泰安市新泰西工业园
Xintai west industrial park Taian city Shandong provice

泰安乐邦漆业有限公司
Tai An Lebang Paints Co. Ltd.,

泰安乐邦漆业有限公司

泰安乐邦漆业有限公司位于山东省泰安市新泰西工业园，公司生产经营汽车涂料、工程机械涂料、金属防腐涂料、车用零部件涂料等高档工业涂料产品。乐邦漆业在新技术应用和新产品推广方面，始终与国际先进涂料企业同步，致力于向客户推出体系完善、性能卓越的涂料产品。

乐邦漆业秉承“超越源于创新、负责才能强盛”的经营理念，致力于推行精细化生产、严格执行IATF16949质量管理体系和ISO14001环境管理体系，关注和不断提升客户满意度，已成为汽车产业客户重要的合作伙伴。

Company Introduction

Lebang Paints Co. Ltd.,is cocated in Xintai west industrial park Taian city Shandong provice . It is an advanced technology company that manufactures and markets premium quality industrial coatings including automotive coatings,construction machinery and equipment coatings, metal anti-corrosion coatings, automotive spare parts coatings . Lebang Paints always keeps the same level as the advanced international coatings companies in new technology application and new product promotion. We commit ourself to offer our customers coatings products possessed with perfect systems and excellent quality.

With the commitment of “Transcend derived from innovation, Powerfulness based on responsibility”, we aspire to promote national coatings industry and achieve harmony development of our company and customers. Lebang Paints strives to carry out refinement production and strictly implement IATF 16949 quality management system and ISO 14001 environmental management system. Our focus and continued improvement on customer satisfaction help us to become their preferred long-term partner.

目录/DIRECTORY

LV100点补底漆
LV100 SPOT PRIMER

类型及用途：

以聚酯树脂为主要成膜物质，拼以改性树脂、颜料等制作的汽车点补底漆，主要用于汽车底漆或中涂漆表面缺陷的遮盖和封闭。

产品特点：

施工方便，闪干后可湿碰湿喷涂基色漆
良好的缺陷遮盖和底材封闭性能
良好的配套物化性能

原漆性能

序号	项目	指标	试验方法
1	状态	无异物及结块	目测
2	粘度	40–100s（涂–4杯/20℃）	GB/T 1723
3	固体份	≥55%（重量百分比）	GB 6751
4	原漆细度	≤15μm	GB 1724
5	贮存稳定性（5–30℃）1年	无异常变化	GB 6753.3–86

漆膜性能

序号	项目	指标	试验方法
1	颜色及外观	符合标准板	GB 9761
2	柔韧性	≤2mm	GB/T 1731
3	附着力等级	≤1级	GB 9286
4	铅笔硬度（划破）	≥HB	GB 6739
5	层间附着力	≤1	GB9286

注：试验样板制作条件

6.1–6.5 项检测采用单层漆膜：

马口铁板：50mm×120mm×0.2–0.3mm
钢板：70mm×150mm×0.5–0.8mm
0号砂纸打磨除锈及镀锡层
膜厚：23 ±3 μm
烘烤条件：140℃×30min

施工性能

序号	项目	指标
1	漆膜烘烤条件	140℃×30min
2	漆膜过喷施工性	≥60μm，漆膜无针孔、气泡
3	漆膜过烘烤性（160℃×30min）	漆膜颜色符合标准板，无明显色差
4	稀释剂	NO:2810、NO:2810夏
5	稀释率	喷涂粘度为13–20s（涂–4杯/20℃）时，稀释剂添加量为50%–100%
6	闪蒸时间	3–7min

TYPE AND USE

LV100 is an automotive spot primer using polyester resinas the main film-builder blendedwith modified resins and pigments. It is mainly designed for the coverage and hiding of the surface defects of primer or primer surfacer

CHARACTERISTICS

Easy application. Ready to spray base coat over it by wet-on-wet after flash-off.
Good hiding power and substrates blocking.
Good mechnical and chemical applicability to other coating layers.

PAINT PROPERTIES

No.	Item	Specification	Test Method
1	Condition in container	No impurities and agglomerates	Visually check
2	Viscosity	40–100s (Cup #4 @20℃)	GB/T 1723
3	Fineness	≥55% (by weight)	GB 6751
4	Solid contents	≤15μm	GB 1724
5	1 year storage stability @5–30℃	No abnormity	GB 6753.3–86

FILM PROPERTIES

No.	Item	Specification	Test Method
1	Color and aspect	Accord with std.panel	GB 9761
2	Flexibility	≤2mm	GB/T 1731
3	Adhesion(1mm)	≤grade 1	GB 9286
4	Pencil hardness (film ruptured)	≥HB	GB 6739
5	Inter–coat adhesion	≤grade 1	GB9286

NOTES: TESTING PANEL PREPARATION

A. Item 1-5 are tested on monolayer

Tin plated panel: 50mmx120mmx0.2-0.3mm
Steel panel: 70mmx150mmx0.5-0.8mm
Sand with 0# sandpaper to remove rust and tin layer.
Thickness: 23± 3μm, bake conditions: 140℃x30min

APPLICATION PROPERTIES

No.	Item	Specification
1	Bake conditions	140℃×30min
2	Over spraying	≥60μm, no pinholes and bubbles
3	Over baking (160℃x30min)	Accord with std. Panel. No obvious color deviation.
4	Thinner	NO.2810, NO.2810 Summer
5	Dilute ratio	Add 50–100% thinner to adjust spray vis. at 13–20s(Cup #4 @20℃)
6	Flash–off time	3–7min

LV160中涂漆
LV 160 PRIMER SURFACER

类型及用途：

以聚酯树脂为主要成膜物质，拼用改性环氧树脂、氨基树脂、颜填料、助剂、溶剂制作的汽车中涂漆，主要用于轿车、轻型车等的第二道底漆

产品特点：

填补性好、平整光滑、易于打磨
较好的机械性能及防腐蚀性
良好的施工性能，适用于空气及静电喷涂

原漆性能

序号	项目	指标	试验方法
1	状态	无异物、不结块	目测
2	粘度	40–100s（涂–4杯/20℃）	GB/T 1723
3	细度	≤20μm	GB/T 1724
4	固体份	≥55%(重量百分比)	GB 6751
5	贮存稳定性（5–30℃）1年	无异常变化	GB 6753.3–86
6	闪点	≥21℃	
7	禁用物质含量	符合标准规定	
8	气味	无刺激性及不愉快气味	

漆膜性能

序号	项目	指标	试验方法
1	颜色及外观	符合标准板、漆膜平整光滑	GB 9761
2	光泽度(60°角)%	≥70	GB9754
3	柔韧性	≤1mm	GB/T 1731
4	附着力（1mm）	≤1级	GB 9286
5	铅笔硬度（划破）	≥HB	GB 6739
6	冲击强度	≥50kg.cm	GB/T 1732
7	杯突实验	在磷化钢板上喷涂中涂漆，膜厚30μm，杯突值≥4mm	GB 9753
8	耐水性（40℃蒸馏水）240hr	无明显变化	GB/T 1733
9	耐盐雾性	无可见变化	GB/T 1771
10	与面漆的匹配	经过480hr盐雾后，外观无变化，无附着力损失，单边锈蚀宽度	比较中涂已打磨和未打磨处面漆光泽和外观

TYPE AND USE

LV 160 is an automotive primer surfacer using polyester resin as the main film-builder blended with modified epoxy resins, amino resins, pigments, additives and solvents. It is mainly used as the second primer for passengercars and light duty vehicules.

CHARACTERISTICS

Good filling power, smooth, easy to sand.Good me chanical properties and corrosion protection.Good application properties. Suitable for air spray and electrostatic spray.

PAINT PROPERTIES

No.	Item	Specification	Test Method
1	Condition in container	No impurities and agglomerates	Visually check
2	Viscosity	40–100s (Cup #4 @20℃)	GB/T 1723
3	Fineness	≤20μm	GB/T 1724
4	Solid contents	≥55%(by weight)	GB 6751
5	1 year storage stability @5–30℃	No abnormity	GB 6753.3–86
6	Flash Point	≥21℃	
7	Forbidden matter content	Accord with std. Regulations	
8	Odor	Not penetrating or bothering	

FILM PROPERTIES

No.	Item	Specification	Test Method
1	Color and aspect	Accordwith std. Panel, smooth	GB 9761
2	Gloss@60°%	≥70	GB9754
3	Flexibility	≤1mm	GB/T 1731
4	Adhesion(1mm)	≤Grade 1	GB 9286
5	Pencil hardness (film ruptured)	≥HB	GB 6739
6	Impact resistance	≥50kg.cm	GB/T 1732
7	Cupping test	Spray PS over phosphated steel panelwith 30μm thickness,cupping value≥4mm	GB 9753
8	240 hour water resistance(distilled water@40℃)	No obvious change	GB/T 1733
9		No obvious change	GB/T 1771
10	Compatibility with top coat	480 hour salt spray resistance No aspect change and adhesion loss. Singlescribe creep less than 3mm	Comparegloss and aspect ofthe top coat over sanded and unsanded PS

LV160中涂漆
LV160 PRIMER SURFACER

注：试验样板制作条件

A、1-6项检测采用单层漆膜：
马口铁板：50mm×120mm×0.2-0.3mm
钢板：70mm×150mm×0.5-0.8mm
0号砂纸打磨除锈及镀锡层
膜厚：23 ±3 μm，烘漆：140℃×30min

B、7-10项检测采用复层漆膜：
电泳钢板：70 ㎜×150㎜×0.5-0.8㎜
在电泳底板上喷涂中涂漆。
电泳漆膜厚：20±3μm，中涂漆膜厚：25-35μm
中涂烘烤条件：140℃×30min

施工性能

序号	项目	指标
1	漆膜流挂性	≥40μm
2	漆膜过喷施工性	≥50μm，漆膜无针孔、气泡
3	稀释剂	色差值≤1NBS，附着力不降低，1级
4	稀释率	适于静电喷涂，0.2-2.0MΩ·m
5	闪干时间	NO:1100、NO:1100夏
6	漆膜过烘烤性（160℃×30min）	喷涂粘度为18-28s（涂-4杯/20℃）时，稀释剂添加量为15%-35%
7	静电施工性，喷涂电阻	>5min

NOTES: TESTING PANEL PREPARATION

A. Item 1-6 are tested on monolayer
Tin plated panel: 50mmx120mmx0.2-0.3mm
Steel panel: 70mmx150mmx0.5-0.8mm
Sand with 0# sandpaper to remove rust and tin layer
Thickness: 23 ± 3 μm, bake conditions: 140℃x30min

B. Item 7-10 are tested on composite coatings
E-coated steel panel: 70mmx150mmx0.5—0.8mm
Spray PS over e-coat layer
Thickness of e-coat: 20±3um, Thickness of PS: 25-35um
Bake conditions of PS: 140℃x30min

APPLICATION PROPERTIES

No.	Item	Specification
1	Sagging	≥40μm
2	Over spraying	≥50μm, no pinholes and bubbles
3	Thinner	△E≤1NBS No adhesion reduction(Grade 1)
4	Dilute ratio	Suitable 0.2-2.0MΩ·m
5	Flash-off time	NO.1100, NO.1100 Summer
6	Over baking (160℃x30min)	Add15-35% thinner to adjust spray vis. At 18-28s(Cup #4 @20℃)
7	Electrostatic applic-ability Resistance	>5min

LV260中涂漆
LV260 PRIMER SURFACER

类型及用途：

以聚酯树脂为主要成膜物质，拼用异氰酸酯树脂、氨基树脂、颜填料、助剂、溶剂制作的高档汽车中涂漆，主要用于轿车、轻型车等的第二道底漆

产品特点：

非常好的涂膜流平性填充性
优异的抗石击性、层间附着力
优异的耐腐蚀性、耐化学药品性

原漆性能

序号	项目	指标	试验方法
1	状态	无异物、不结块	目测
2	粘度	40-100s（涂-4杯/20℃）	GB/T 1723
3	细度	≤15μm	GB/T 1724
4	固体份	≥60%(重量百分比)	GB 6751
5	贮存稳定性（5-30℃）1年	无异常变化	GB 6753.3-86
6	闪点	≥21℃	
7	禁用物质含量	符合标准规定	
8	气味	无刺激性及不愉快气味	

漆膜性能

序号	项目	指标	试验方法
1	颜色及外观	符合标准板、漆膜平整光滑	GB 9761
2	光泽度（60°角）%	≥70	GB9754
3	柔韧性	≤1mm	GB/T 1731
4	附着力（1mm）	≤0级	GB 9286
5	铅笔硬度（划破）	≥H	GB 6739
6	冲击强度	≥50kg.cm	GB/T 1732
7	杯突实验	在磷化钢板上喷涂中涂漆，膜厚30μm，杯突值≥5mm	GB 9753
8	耐水性（40℃蒸馏水）240hr	无明显变化	GB/T 1733
9	耐盐雾性	经过480hr盐雾后，外观无变化，无附着力损失，单边锈蚀宽度<3mm	GB/T 1771
10	抗石击性（试验温度为-18℃）	将6号碎石（或双方商定）500g，对试片进行冲击，然后进行72hr盐雾试验 7-8级 锈点≤50点	克拉珀龙计法
11	与面漆的匹配	无可见变化	比较中涂已打磨和未打磨处面漆光泽和外观

TYPE AND USE

LV 260 is a premium quality automotive primer surfacer using polyester resin as the main film-builder blended with isocyanate resins, amino resins, pigments, additives and solvents. It is mainly used as the second primer for passenger cars and light duty vehicules.

CHARACTERISTICS

Excellent levelling and filling power.
Superior stone chipping resistance and inter-coat adhesion.
Extraordinary corrosion protection and chemical resistance.

PAINT PROPERTIES

No.	Item	Specification	Test Method
1	Condition in container	No impurities and agglomerates	Visually check
2	Viscosity	40-100s (Cup #4 @20℃)	GB/T 1723
3	Fineness	≤15μm	GB/T 1724
4	Solid contents	≥60%(by weight)	GB 6751
5	1 year storage stability @5-30℃	No abnormity	GB 6753.3-86
6	Flash Point	≥21℃	
7	Forbidden matter content	Accord with std. Regulations	
8	Odor	Not penetrating or bothering	

FILM PROPERTIES

No.	Item	Specification	Test Method
1	Color and aspect	Accordwith std. Panel, smooth	GB 9761
2	Gloss@60°%	≥70	GB9754
3	Flexibility	≤1mm	GB/T 1731
4	Adhesion(1mm)	≤Grade 0	GB 9286
5	Pencil hardness (film ruptured)	≥H	GB 6739
6	Impact resistance	≥50kg.cm	GB/T 1732
7	Cupping test	Spray PS over phosphated steel panelwith 30μm thickness,cupping value≥4mm	GB 9753
8	240 hour water resistance(distilled water@40℃)	No obvious change	GB/T 1733
9		480 hour salt spray resistance No aspect change and adhesion loss. Singlescribe creep less than 3mm	GB/T 1771
10	Stone chipping resistance@-18℃	Grade 7-8, rust spots ≤50. Impact testing panel by 500g gravel #6 (or decided by both parties) then undergo 72 hour salt spray	Clapeyron Method
11	Compatibility with top coat	No obvious change	Comparegloss and aspect ofthe top coat over sanded and unsanded PS

LV180实色漆
LV180 SOLID COLOR TOP COAT

注：试验样板制作条件

A、1－5项检测采用单层漆膜：
马口铁板：50mm×120mm×0.2–0.3mm
钢板：70mm×150mm×0.5–0.8mm
0号砂纸打磨除锈及镀锡层
膜厚：23 ±3 μm，烘漆：140℃×30min

B、6–16项检测采用复层漆膜：
电泳钢板：70 mm×150mm×0.6－0.8mm
在电泳底板上涂中涂漆后，再涂面漆。
电泳漆膜厚：20±3μm，中涂漆膜厚：25–35μm
面漆膜厚：35–45μm

施工性能

序号	项目	指标
1	漆膜烘烤条件	140℃×30min
2	漆膜流挂性	≥50μm
3	漆膜过喷施工性	≥60μm，漆膜无针孔、气泡
4	漆膜过烘烤性（160℃×30min）	漆膜颜色符合标准板，无明显色差
5	静电施工性，喷涂电阻,喷涂电压	适于静电喷涂，0.2–2.0MΩ·m 60–90KV
6	稀释剂	NO:1200、NO:12100夏
7	稀释率	喷涂粘度为18–28s（涂–4杯/20℃）时，稀释剂添加量为15%–35%
8	闪干时间	>5min

NOTES: TESTING PANEL PREPARATION

A. Item 1-5 are tested on monolayer
Tin plated panel: 50mmx120mmx0.2-0.3mm
Steel panel: 70mmx150mmx0.5-0.8mm
Sand with 0# sandpaper to remove rust and tin layer
Thickness: 23 ± 3 μm, bake conditions: 140℃x30min

B. Item6-16 are tested on composite coatings
Steel panel: 70mmx150mmx0.6—0.8mm
Electrodeposite panel, then spray PS and top coat
Thickness of e-coat: 20±3um, Thickness of PS: 25-35um
Thickness of top coat: 35-45um

APPLICATION PROPERTIES

No.	Item	Specification
1	Baking conditions	140℃x30min
2	Sagging	≥50μm
3	Over spraying	≥60μm, no pinholes and bubbles
4	Over baking (160℃x30min)	Accord with std. Panel. No obvious color deviation.
5	Electrostatic applica-bility Resistance HV	Suitable 0.2–2.0M Ω·m 60–90KV
6	Thinner	NO.1200, NO.1200 Summer
7	Dilute ratio	Add15–35% thinner to adjust spray vis. At 18–28s(Cup #4 @20℃)
8	Flash–off time	>5min

LV180W基色底漆
LV 180W BASE COAT

类型及用途：
以聚酯树脂为主要成膜物质，拼用改性树脂、醋丁纤维素、氨基树脂、颜料、闪光材料等制作的金属闪光基色底漆。主要用作轿车、轻型车等车型的基色底漆。

产品特点：
优异的喷涂适应性，漆膜具有亮丽的金属光泽或珠光效果
极佳的机械性能，层间附着力好
耐候性及耐化学药品性好。

原漆性能

序号	项目	指标	试验方法
1	状态	无浮色易搅拌均匀	目测
2	粘度	40–100s（涂–4杯/20℃）	GB/T 1723
3	固体份	≥30%（重量百分比）	GB 6751
4	贮存稳定性（5–30℃）1年	无异常变化	GB 6753.3–86
5	闪点	≥21℃	
6	禁用物质含量	符合标准规定	
7	气味	无刺激性及不愉快气味	

漆膜性能

序号	项目	指标	试验方法
1	颜色及外观	平整光滑、符合标准板色差范围	GB 9761
2	柔韧性	≤1mm	GB/T 1731
3	附着力等级	≤1级	GB 9286
4	铅笔硬度（划破）	≥HB	GB 6739
5	冲击强度	≥40kg·cm	GB/T 1732
6	其它性能指标	具体指标按相关清漆复层指标执行	

注：试验样板制作条件
6.1–6.5项检测采用单层漆膜：
马口铁板：50mm×120mm×0.2–0.3mm
钢板：70mm×150mm×0.5–0.8mm
0号砂纸打磨除锈及镀锡层
膜厚：15–25 μm
烘烤条件：140℃×30min

施工性能

序号	项目	指标
1	漆膜过烘烤性（160℃×30min）	漆膜颜色符合标准板，无明显色差
2	静电施工性喷涂电阻	适于静电喷涂 0.2–2.0M Ωm
3	稀释剂	NO:2200、NO:2200 夏
4	稀释率	喷涂粘度为14–18s（涂–4杯/20℃）时，稀释剂添加量为50%–100%
5	清漆配套性	与VT280清漆、VT380清漆、VT480清漆均有良好的施工配套性能
6	闪干时间	5–10min

TYPE AND USE
LV 180W is a metallic base coat using polyester resin as the main film-builder blended with modified resin, CAB, amino resins, pigments, metallic and pearl materials . It is mainly used as the base coat for passenger cars and light duty vehicules.

CHARACTERISTICS
Excellent sprayability. Brilliant metallic or pearl effect.
Superior mechanical properties and inter-coat adhesion.
Good weatherability and chemical resistance.

PAINT PROPERTIES

No.	Item	Specification	Test Method
1	Condition in container	No color floating. Easy stirring	Visually check
2	Viscosity	40–100s (Cup #4 @20℃)	GB/T1723
3	Fineness	≥30% (by weight)	GB 6751
4	1 year storage stability @5–30℃	No abnormity	GB6753.3–86
5	Flash point	≥21℃	
6	Forbidden matter content	No irritative or unpleasent smell	
7	Odor	Accord with std. Regulations	

FILM PROPERTIES

No.	Item	Specification	Test Method
1	Color and aspect	Accord with std.panel	GB 9761
2	Flexibility	≤1mm	GB/T 1731
3	Adhesion(1mm)	≤grade 1	GB 9286
4	Pencil hardness (film ruptured)	≥HB	GB 6739
5	Inter–coat adhesion	≥40kg·cm	GB/T 1732
6	Miscellaneous	Details accord with correlated specifications of clear coat composite layers	

NOTES: TESTING PANEL PREPARATION
A. Item 1-5 are tested on monolayer
Tin plated panel: 50mmx120mmx0.2-0.3mm
Steel panel: 70mmx150mmx0.5-0.8mm
Sand with 0# sandpaper to remove rust and tin layer.
Thickness: 15-25μm, bake conditions: 140℃x30min

APPLICATION PROPERTIES

No.	Item	Specification
1	Over baking (160℃x30min)	Accord with std. Panel. No obvious color deviation.
2	Electrostatic applicability	Resistance Suitable 0.2–2.0MΩ·m
3	Thinner	NO.2200, NO.2200 Summer
4	Thining ratio	Add 50–100% thinner to adjust spray vis. at 14–18s(Cup #4 @20℃)
5	Compatibility with clear coat	Well match VT280, VT380, Vt480 clear coat
6	Flash–off time	5–10min

LV中涂漆
LV 260 PRIMER SURFACER

注：试验样板制作条件

A、1－6项检测采用单层漆膜：
马口铁板：50mm×120mm×0.2–0.3mm
钢板：70mm×150mm×0.5–0.8mm
0号砂纸打磨除锈及镀锡层
膜厚：23 ±3 μm，烘漆：140℃×30min

B、7–10项检测采用复层漆膜：
电泳钢板：70 mm×150mm×0.5－0.8mm
在电泳底板上喷涂中涂漆。
电泳漆膜厚：20±3μm，中涂漆膜厚：25–35μm
中涂烘烤条件：140℃×30min

施工性能

序号	项目	指标
1	漆膜流挂性	≥45μm
2	漆膜抗起针孔性	≥60μm，漆膜无针孔、气泡
3	漆膜过烘烤性（160℃×30min）	色差值≤1NBS，附着力不降低，1级
4	静电施工性，喷涂电阻	适于静电喷涂，0.2–2.0MΩ·m
5	稀释剂	NO:1100、NO:1100夏
6	稀释率	喷涂粘度为18–28s（涂–4杯/20℃）时，稀释剂添加量为15%–35%
7	闪干时间	>5min

NOTES: TESTING PANEL PREPARATION

A. Item 1-6 are tested on monolayer
Tin plated panel: 50mmx120mmx0.2-0.3mm
Steel panel: 70mmx150mmx0.5-0.8mm
Sand with 0# sandpaper to remove rust and tin layer
Thickness: 23 ± 3 μm, bake conditions: 140℃x30min

B. Item 7-10 are tested on composite coatings
E-coated steel panel: 70mmx150mmx0.5—0.8mm
Spray PS over e-coat layer
Thickness of e-coat: 20±3um, Thickness of PS: 25-35um
Bake conditions of PS: 140℃x30min

APPLICATION PROPERTIES

No.	Item	Specification
1	Sagging	≥45μm
2	Over spraying	≥60μm, no pinholes and bubbles
3	Over baking (160℃x30min)	△E≤1NBS No adhesion reduction(Grade 1)
4	Electrostatic applic-ability Resistance	Suitable 0.2–2.0MΩ·m
5	Thinner	NO.1100, NO.1100 Summer
6	Dilute ratio	Add15–35% thinner to adjust spray vis. At 18–28s(Cup #4 @20℃)
7	Flash–off time	>5min

LV180实色漆
LV180 SOLID COLOR TOP COAT

类型及用途：
以聚酯树脂为主要成膜物质，拼用改性树脂、氨基树脂、颜料、助剂、溶剂制作的高档汽车实色面漆。主要用于轿车、商用车等的表面喷涂装饰。

产品特点：
优异的表面丰满度、光泽和鲜艳性
理化性能及耐侯性好
良好的施工性能，适用于空气及静电喷涂

原漆性能

序号	项目	指标	试验方法
1	状态	无浮色、易搅拌均匀	目测
2	粘度	40–100s（涂–4杯/20℃）	GB/T 1723
3	细度	≤10μm	GB/T 1724
4	固体份	≥60%(白色漆)≥50%(其它漆)(重量百分比)	GB 6751
5	贮存稳定性（5–30℃）1年	无异常变化	GB 6753.3–86

漆膜性能

序号	项目	指标	试验方法
1	颜色及外观	平整光亮、符合标准板色差范围	GB 9761
2	铅笔硬度	≥H	GB 6739
3	附着力（1mm）	≤1级	GB 9286
4	柔韧性	≤1mm	GB/T 1731
5	冲击强度	≥30kg.cm	GB/T 1732
6	光泽度%	≥90（60°角），≥80（20°角）	GB9754
7	鲜艳性（PGD值）	≥0.7（水平面），≥0.5（垂直面）	GB/T13492
8	耐汽油性（90#汽油）24hr	无明显变化	GB/T 1734
9	耐水性（40℃蒸馏水）240hr	无明显变化	GB/T 1733
10	耐酸性(0.05M H2SO4)24hr	无明显变化	GB/T1763
11	耐碱性（0.1M NaOH）24hr	无明显变化	GB/T1763
12	杯突实验（复层）	≥3mm	GB9753
13	耐二甲苯（浸5min,恢复5min）	无明显变化	GB9274–88丙法
14	耐湿热性(47±1℃, RH:96±2%)120hr	≤1级	GB1740
15	人工老化实验	氙灯老化1000hr失光率≤15%,允许轻微变色(△E≤3.0NBS)	ASTM G 26–77
16	大气自然曝晒实验	海南曝晒场24个月失光率≤15%,允许轻微变色(△E≤3.0NBS)	GB/T 9276–96

TYPE AND USE
LV 180 is a premium quality automotive solid color top coat using polyester resin as the main film-builder blended with modified resins, amino resins, pigments, additives and solvents. It is mainly used as the top coat for passenger cars and commercial vehicules.

CHARACTERISTICS
Excellent film fullness, gloss and brilliance.
Good mechanical and chemical properties. Good weath erability.
Good application properties. Suitable for air spray and electrostatic spray.

PAINT PROPERTIES

No.	Item	Specification	Test Method
1	Condition in container	No color floating. Easy stirring	Visually check
2	Viscosity	40–100s (Cup #4 @20℃)	GB/T 1723
3	Fineness	≤10μm	GB/T 1724
4	Solid contents	≥60%(white), ≥50% (other colors)(by weight)	GB 6751
5	1 year storage stability @5–30℃	No abnormity	GB 6753.3–86

FILM PROPERTIES

No.	Item	Specification	Test Method
1	Color and aspect	Accordwith std. Panel, smooth and glossy	GB 9761
2	Pencil hardness	≥H	GB 6739
3	Adhesion(1mm)	≤grade 1	GB 9286
4	Flexibility	≤1mm	GB/T 1731
5	Impact resistence	≥30kg.cm	GB/T 1732
6	Gloss %	≥90@60°, ≥80@20°	B9754
7	Distinctness of Image(PGD value)	≥0.7（horizontal）≥0.5(vertical)	GB/T13492
8	24 hour gasoline (90#) resistance	No obvious change	GB/T1734
9	240 hour water resistance(distilled water @40℃)	No obvious change	GB/T 1733
10	24 hour acid resistance (0.05M H_2SO_4)	No obvious change	GB/T1763
11	24 hour alkali resistance (0.1M.NaOH)	No obvious change	GB/T1763
12	Cupping test (composite layers)	≥3mm	GB 9753
13	Xylene resistance (immerse for 5min, air dry for 5min)	No obvious change	GB9274–88 3rd
14	120 hour humidity resistance(47±1℃, RH: 96±2%)	Grade 1	GB1740
15	1000 hour Xenon Weatherability	Gloss reduction≤15%, allow slight color deviation(△E≤3.0NBS)	ASTM G 26–77
16	24 month Air exposure test	Hainan Exposure Site, Gloss reduction≤15%, allow slight color deviation(△E≤3.0NBS)	GB/T 9276–96

LV280实色面漆
LV 280SOLID COLOR TOP COAT

注：试验样板制作条件

A 、1－5项检测采用单层漆膜：
马口铁板：50mm×120mm×0.2–0.3mm
钢板：70mm×150mm×0.5–0.8mm
0 号砂纸打磨除锈及镀锡层
膜厚：23 ±3 μm，烘烤条件：140℃×30min

B、7–10项检测采用复层漆膜：
电泳钢板：70 mm×150mm×0.5－0.8mm
在电泳底板上涂中涂漆后，再涂面漆。
电泳漆膜厚：20±3μm，中涂漆膜厚：25–35μm
面漆膜厚：35–40 μm,中涂烘烤条件：140℃×30min

施工性能

序号	项目	指标
1	漆膜烘烤条件	140℃×20－30min
2	漆膜流挂性	≥50μm
3	漆膜过喷施工性	≥60μm，漆膜无针孔、气泡
4	漆膜过烘烤性（160℃×30min）	漆膜颜色符合标准板，无明显色差
5	静电施工性喷涂电阻喷涂电压	适于静电喷涂 0.2–2.0MΩ・m60–90KV
6	稀释剂	NO:1200、NO:1200 夏
7	稀释率	喷涂粘度为 18–28s（涂－4杯/20℃）时，稀释剂添加量为15%–30%
8	闪干时间	≥5min

NOTES: TESTING PANEL PREPARATION

A. Item 1-5 are tested on monolayer
Tin plated panel: 50mmx120mmx0.2-0.3mm
Steel panel: 70mmx150mmx0.5-0.8mm
Sand with 0# sandpaper to remove rust and tin layer
Thickness: 23 ± 3 μm, bake conditions: 140℃x30min

B. Item 7-10 are tested on composite coatings
Steel panel: 70mmx150mmx0.5—0.8mm
Electrodeposite panel, then spray PS and top coat
Thickness of e-coat: 20±3um, Thickness of PS: 25-35um
Thickness of top coat: 35-40um.Bake conditions of PS: 140℃x30min

APPLICATION PROPERTIES

No.	Item	Specification
1	Baking conditions	140℃x20–30min
2	Sagging	≥50μm
3	Over spraying	≥60μm , no pinholes and bubbles
4	Over baking (160℃x30min)	Accord with std. panel. No obvious color deviation
5	Electrostatic applica –bility Resistance HV	Suitable 0.2–2.0MΩ・m 60–90KV
6	Thinner	NO.1200, NO.1200 Summer
7	Dilute ratio	Add 15–35% thinner to adjust spray vis. at 18–28s(Cup #4 @20℃)
8	Flash–off time	≥5min

LV280罩光清漆
LV280 CLEAR COAT

类型及用途：

以丙稀酸树脂为主要成膜物质，拼用流变控制树脂、氨基树脂、助剂、溶剂制作的汽车罩光清漆。主要用于轿车、轻型车等车型的表面罩光涂饰。

产品特点：

易于施工，流平流挂平衡好
漆膜光亮、丰满，鲜艳性好
耐老化性及耐化学药品性好

原漆性能

序号	项目	指标	试验方法
1	状态	透明或乳白色液体	目测
2	粘度	40–100s（涂–4杯/25℃）	GB/T 1723
3	固体份	≥50%（重量百分比）	GB 6751
4	细度	≤10μm（乳白）	GB/T 1724
5	贮存稳定性（5–30℃）6个月	无异常变化	GB 6753.3–86
6	闪点	≥21℃	
7	禁用物质	含量符合标准规定	
8	气味	无刺激性及不愉快气味	

漆膜性能

序号	项目	指标	试验方法
1	颜色及外观	无色透明	GB 9761
2	柔韧性	≤2mm	GB/T 1731
3	附着力（1mm）	≤1级	GB 9286
4	铅笔硬度（划破）	≥2H	GB 6739
5	冲击强度	≥30kg.cm	GB/T 1732
6	杯突试验	≥3mm	GB 9753
7	层间附着力	≤1级	GB9286
8	光泽度%	≥90（20°角）	GB9754
9	鲜映性（PDG 值）	≥0.8	GB/T 13492
10	耐汽油性（90# 汽油）24hr	无明显变化	GB/T 1734
11	耐水性（40℃ 蒸馏水）240hr	无明显变化	GB/T 1733
12	耐酸性（0.05M H2SO4）24hr	无明显变化	GB/T 1763
13	耐碱性（0.1 M NaOH） 24hr	无明显变化	GB/T 1763
14	人工老化实验	QUV老化1500hr，失光率≤15%，允许轻微变色（△E≤3NBS），其它无明显变化	ASTM G 53–77

TYPE AND USE

LV 280 is an automotive clear coat using acrylic resin as the main film-builder blended with rheology control resins, amino resins, additives and solvents. It is mainly used as the clear coat for passenger cars and light duty vehicules.

CHARACTERISTICS

Easy application. Good balance between levelling and sagging.
Excellent film fullness, gloss and brilliance.
Good weatherability and chemical resistance.

PAINT PROPERTIES

No.	Item	Specification	Test Method
1	Condition in container	Transparent or milk white liquid	Visually check
2	Viscosity	40–100s (Cup #4 @25℃)	GB/T 1723
3	Fineness	≤10μm(milk white)	GB/T 1724
4	Solid contents	≥50%（by weight）	GB 6751
5	half year storage stability @5–30℃	No abnormity	GB 6753.3–86
6	Flash point	≥21℃	
7	Forbidden matter content	Accord with std. Regulations	
8	Odor	No irritative or unpleasent smell	

FILM PROPERTIES

No.	Item	Specification	Test Method
1	Color and aspect	Transparent and colorless	GB 9761
2	Pencil hardness (film ruptured)	≥2H	GB 6739
3	Adhesion(1mm)	≤grade 1	GB 9286
4	Flexibility	≤2mm	GB/T 1731
5	Impact resistence	≥30kg.cm	GB/T 1732
6	Cupping test (composite layers)	≥3mm	GB 9753
7	Inter–coat adhesion	≤grade	1GB 9286
8	Gloss %	≥90@20°	GB9754
9	Distinctness of Image(PGD value)	≥0.8	GB/T 13492
10	24 hour gasoline (90#) resistance	No obvious change	GB/T 1734
11	240 hour water resistance(distilled water @40℃)	No obvious change	GB/T 1733
12	24 hour acid resistance (0.05M H_2SO_4)	No obvious change	GB/T 1763
13	24 hour alkali resistance (0.1M NaOH)	No obvious change	GB/T 1763
14	1500 hour QUV Weatherability	Gloss reduction≤15%, allow slight color deviation(△E≤3.0NBS), no other obvious changes	ASTM G 53–77

LV280基色底漆
LV280W BASE COAT

类型及用途：

以丙稀酸树脂为主要成膜物质，拼以非水分散树脂、氨基树脂、颜料、闪光材料等制作的金属闪光基色底漆。主要用作轿车、轻型车等车型的基色底漆。

产品特点：

极佳的施工适应性，豪华的金属光泽或珠光效果
良好的底材遮闭性和闪光材料的定位
耐老化及耐化学药品性好

原漆性能

序号	项目	指标	试验方法
1	状态	无浮色易搅拌均匀	目测
2	粘度	40–100s（涂–4杯/20℃）	GB/T 1723
3	固体份	≥30%（重量百分比）	GB 6751
4	贮存稳定性（5–30℃）1年	无异常变化	GB 6753.3–86
5	闪点	≥21℃	
6	禁用物质含量	符合标准规定	
7	气味	无刺激性及不愉快气味	

漆膜性能

序号	项目	指标	试验方法
1	颜色及外观	平整光滑、符合标准板色差范围	GB 9761
2	柔韧性	≤1mm	GB/T 1731
3	附着力（1mm）	≤1级	GB 9286
4	铅笔硬度	≥H	GB 6739
5	冲击强度	≥30kg·cm	GB/T 1732
6	其它性能指标	具体指标按相关清漆复层指标执行	

注：试验样板制作条件

1–5 项检测采用单层漆膜：
马口铁板：50mm×120mm×0.2–0.3mm
钢板：70mm×150mm×0.5–0.8mm
0 号砂纸打磨除锈及镀锡层
膜厚：15–25 μm
烘烤条件：140℃×30min

施工性能

序号	项目	指标
1	漆膜过烘烤性（160℃×30min）	漆膜颜色符合标准板，无明显色差
2	静电施工性喷涂电阻	适于静电喷涂 0.2–2.0M Ωm
3	稀释剂	NO:2200、NO:2200 夏
4	稀释率	喷涂粘度为14–18s（涂–4 杯/20℃）时，稀释剂添加量为50%–100%
5	清漆配套性	与VT280清漆、VT380 清漆、VT480 清漆均有良好的施工配套性能
6	闪蒸时间	5–10min

TYPE AND USE

LV280W is a metallic base coat using acrylic resin as the main film-builder blended with NAD resins, amino resins, pigments, metallic and pearl materials. It is mainly used as the base coat for passenger cars and light duty vehicules.

CHARACTERISTICS

Excellent sprayability. Luxury metallic or pearl effect.
Good hiding power and metallic orientation.
Good weatherability and chemical resistance.

PAINT PROPERTIES

No.	Item	Specification	Test Method
1	Condition in container	No color floating. Easy stirring	Visually check
2	Viscosity	40–100s (Cup #4 @20℃)	GB/T1723
3	Solid contents	≥30% (by weight)	GB 6751
4	1 year storage stability @5–30℃	No abnormity	GB 6753.3–86
5	Flash point	≥21℃	
6	Forbidden matter content	Accord with std. Regulations	
7	Odor	No irritative or unpleasent smell	

FILM PROPERTIES

No.	Item	Specification	Test Method
1	Color and aspect	Accord withstd. Panel smooth	GB 9761
2	Flexibility	≤1mm	GB/T 1731
3	Adhesion(1mm)	≤grade 1	GB 9286
4	Pencil hardness	≥HB	GB 6739
5	Inter–coat adhesion	≥30kg·cm	GB/T 1732
6	Miscellaneous	Details accord with correlated specifications of clear coat composite coatings	

NOTES: TESTING PANEL PREPARATION

A. Item 1-5 are tested on monolayer
Tin plated panel: 50mmx120mmx0.2-0.3mm
Steel panel: 70mmx150mmx0.5-0.8mm
Sand with 0# sandpaper to remove rust and tin layer.
Thickness: 15-25μm, bake conditions: 140℃x30min

APPLICATION PROPERTIES

No.	Item	Specification
1	Over baking (160℃x30min)	Accord with std. Panel. No obvious color deviation.
2	Electrostatic applic–ability Resistance	Suitable0.2–2.0MΩ·m
3	Thinner	NO.2810, NO.2810 Summer
4	Dilute ratio	Add 50–100% thinner to adjust spray vis. at 13–20s(Cup #4 @20℃)
5	Compatibility with clear coat	Well match VT280, VT380, Vt480 clear coat
6	Flash–off time	5–10min

LV280实色面漆
LV28 SOLID COLOR TOP COAT

类型及用途：

以丙稀酸树脂为主要成膜物质，拼用改性树脂、氨基树脂、颜料、助剂、溶剂制作的汽车高档实色面漆。主要用于轿车、轻型车等的表面喷涂装饰。

产品特点：

表面丰满、光泽及鲜艳性好
硬度高、耐擦洗、抗污染，保光保色性好
优异的户外耐老化性

原漆性能

序号	项目	指标	试验方法
1	状态	无浮色、易搅拌均匀	目测
2	粘度	40–100s（涂–4杯/20℃）	GB/T 1723
3	细度	≤10μm	GB/T 1724
4	固体份	≥60%(白色漆)，≥50%(其它漆)(重量百分比)	GB 6751
5	贮存稳定性（5–30℃）1年	无明显变化	GB 6753.3–86

漆膜性能

序号	项目	指标	试验方法
1	颜色及外观	平整光亮、符合标准板色差范围	GB 9761
2	柔韧性	≤2mm	GB/T 1731
3	附着力（1mm）	≤1级	GB 9286
4	铅笔硬度（划破）	≥2H	GB 6739
5	冲击强度	≥30kg.cm	GB/T 1732
6	光泽度(60°角)%	≥90（60° 角），≥ 80（ 20° 角）	GB9754
7	鲜映性（PGD值）	≥0.7（水平面），≥0.5（垂直面）	GB/T 13492
8	耐汽油性（90# 汽油）24hr	无明显变化	GB/T 1734
9	耐水性（40℃蒸馏水）240hr	无明显变化	GB/T 1733
10	耐酸性（0.05M H2SO4）24hr	无明显变化	GB/T 1763
11	耐碱性（0.1 M NaOH） 24hr	无明显变化	GB/T 1763
12	杯突试验(复层)	≥3mm	GB 9753
13	耐湿热性(47±1℃，RH:96±2%),120hr	1级	GB 1740
14	人工老化实验	QUV老化800hr，失光率≤15%，允许轻微变色（△E≤3NBS）	ASTM G 53–77
15	户外曝晒实验	海南曝晒场24个月,失光率≤ 15%,允许轻微变色（△E≤3.0NBS）	GB 9276–96

TYPE AND USE

LV280 is a premium quality automotive solid color top coat using acrylic resin as the main film-builder blended with modified resins, amino resins, pigments, additives and solvents. It is mainly used as the top coat for passenger cars and light duty vehicules.

CHARACTERISTICS

Excellent film fullness, gloss and brilliance.
Excellent hardness, scrub resistance and stain resistance.
Good color and gloss retention.
Extraordanary weatherability.

PAINT PROPERTIES

No.	Item	Specification	Test Method
1	Condition in container	No color floating. Easy stirring	Visually check
2	Viscosity	40–100s (Cup #4 @20℃)	GB/T 1723
3	Fineness	≤10μm	GB/T 1724
4	Solid contents	≥60%(white), ≥50% (other colors)(by weight)	GB 6751
5	1 year storage stability @5–30℃	No abnormity	GB 6753.3–86

FILM PROPERTIES

No.	Item	Specification	Test Method
1	Color and aspect	Accord with std. panel, smooth and glossy	GB 9761
2	Flexibility	≤2mm	GB/T 1731
3	Adhesion(1mm)	≤grade 1	GB 9286
4	Pencil hardness (film ruptured)	≥2H	GB 6739
5	Impact resistence	≥30kg.cm	GB/T 1732
6	Gloss %	≥90@60°, ≥80@20°	GB9754
7	Distinctness of Image(PGD value)	≥0.7 (horizontal) ≥0.5(vertical)	GB/T 13492
8	24 hour gasoline (90#) resistance	No obvious change	GB/T 1734
9	240 hour water resistance(distilled water @40℃)	No obvious change	GB/T 1733
10	24 hour acid resistance ($0.05M\ H_2SO_4$)	No obvious change	GB/T 1763
11	24 hour alkali resistance (0.1M NaOH)	No obvious change	GB/T 1763
12	Cupping test (composite layers)	≥3mm	GB 9753
13	120 hour humidity resistance(47±1℃, RH: 96±2%)	Grade 1	GB 1740
14	800 hour QUV Weatherability	Gloss reduction≤15%, allow slight color deviation(△E≤3.0NBS)	ASTM G 53–77
15	24 month air exposure test	Hainan Exposure Site, Gloss reduction≤15%, allow slight color deviation(△E≤3.0NBS)	GB 9276–96

LV380罩光清漆
LV380 CLEAR COAT

注：试验样板制作条件

A、1-5项检测采用单层漆膜：
马口铁板：50mm×120mm×0.2-0.3mm
钢板：70mm×150mm×0.5-0.8mm
0号砂纸打磨除锈及镀锡层
膜厚：23 ±3 μm，烘烤条件：140℃×30min

B、6-14项检测采用复层漆膜：
在汽车电泳钢板上涂中涂漆，烘干后，
用湿碰湿方法喷涂闪光基底漆和罩光清漆
电泳漆膜厚20±3μm，中涂漆膜厚25-35μm
闪光漆膜厚15-25μm，罩光清漆膜厚35-45μm
烘烤条件：140℃×30min

施工性能

序号	项目	指标
1	漆膜过烘烤性（160℃×30min）	漆膜颜色符合标准板，无明显色差
2	漆膜流挂性	≥50μm
3	漆膜过喷施工性	≥60μm，漆膜无针孔、气泡
4	静电施工性 喷涂电阻	适于静电喷涂 0.2-2.0MΩ·m
5	稀释剂	NO:2200、NO:2200夏
6	稀释率	喷涂粘度为18-28s（涂-4杯/20℃）时，稀释剂添加量为15%-30%
7	闪蒸时间	≥10min
8	湿碰湿配合性	与VT180W、VT280W基色底漆均有很好的配套施工性能

NOTES: TESTING PANEL PREPARATION

A. Item 1-5 are tested on monolayer
Tin plated panel: 50mmx120mmx0.2-0.3mm
Steel panel: 70mmx150mmx0.5-0.8mm
Sand with 0# sandpaper to remove rust and tin layer
Thickness: 23 ± 3 μm, bake conditions: 140℃x30min

B. Item 6-14 are tested on composite coatings
Electrodeposite automotive steel panel, then spray PS and bake.
Spray metallic base coat and clear coat by wet-on-wet
Thickness of e-coat: 20±3um, Thickness of PS: 25-35um
Thickness of metallic base coat: 15-25um, Thickness of clear coat: 35-45um.Bake conditions:140℃×30min

APPLICATION PROPERTIES

No.	Item	Specification
1	Over baking (160℃x30min)	Accord with std. panel. No obvious color deviation
2	Sagging	≥50μm
3	Over spraying	≥60μm, no pinholes and bubbles
4	Electrostatic applic-ability Resistance	Suitable 0.2-2.0MΩ·m
5	Thinner	NO.2200, NO.2200 Summer
6	Dilute ratio	Add 15-35% thinner to adjust spray vis. at 18-28s(Cup #4 @20℃)
7	Flash-off time	≥10min
8	Wet-on-wet applicability	Well match VT180W, VT280W metallic base coat

LV480罩光清漆
LV480 CLEAR COAT

类型及用途：

以改性丙稀酸树脂为主要成膜物质，拼用流变控制树脂、氨基树脂、助剂、溶剂制作的汽车罩光清漆。主要用于轿车、轻型车等车型的表面罩光涂饰。：

产品特点：

优异的施工性能。漆膜丰满，鲜艳性好
出色的耐酸雨、抗划伤性能
耐老化性及耐化学药品性好

原漆性能

序号	项目	指标	试验方法
1	状态	透明或乳白色液体	目测
2	粘度	40-100s（涂-4杯/25℃）	GB/T 1723
3	固体份	≥50%（重量百分比）	GB 6751
4	细度	≤10μm（乳白）	GB/T 1724
5	贮存稳定性（5-30℃）6个月	无异常变化	GB 6753.3-86
6	闪点	≥21℃	
7	禁用物质	含量符合标准规定	
8	气味	无刺激性及不愉快气味	

漆膜性能

序号	项目	指标	试验方法
1	颜色及外观	无色透明	GB 9761
2	柔韧性	≤2mm	GB/T 1731
3	附着力（1mm）	≤1级	GB 9286
4	铅笔硬度（划破）	≥2H	GB 6739
5	冲击强度	≥30kg.cm	GB/T 1732
6	杯突试验	≥3mm	GB 9753
7	层间附着力	≤1级	GB9286
8	光泽度%	≥90（20°角）	GB9754
9	鲜映性（PDG值）	≥0.8	GB/T 13492
10	耐汽油性（90#汽油）24hr	无明显变化	GB/T 1734
11	耐水性（40℃蒸馏水）240hr	无明显变化	GB/T 1733
12	耐酸性（0.05M H2SO4）24hr	无明显变化	GB/T 1763
13	耐碱性（0.1 M NaOH） 24hr	无明显变化	GB/T 1763
14	人工老化实验	QUV老化2000hr，失光率≤10%，允许轻微变色（△E≤3NBS），其它无明显变化	ASTM G 53-77

TYPE AND USE

LV480 is an automotive clear coat using acrylic resin as the main film-builder blended with rheology control resins, amino resins, additives and solvents.It is mainly used as the clear coat for passenger cars and light duty vehicules.

CHARACTERISTICS

Excellent applicability. Good film fullness and brilliance. Extraordanary acid rain resistance and scratch resistance. Good weatherability and chemical resistance.

PAINT PROPERTIES

No.	Item	Specification	Test Method
1	Condition in container	Transparent or milk white liquid	Visually check
2	Viscosity	40-100s (Cup #4 @25℃)	GB/T 1723
3	Fineness	≤10μm(milk white)	GB/T 1724
4	Solid contents	≥50% (by weight)	GB 6751
5	half year storage stability @5-30℃	No abnormity	GB 6753.3-86
6	Flash point	≥21℃	
7	Forbidden matter content	Accord with std. Regulations	
8	Odor	No irritative or unpleasent smell	

FILM PROPERTIES

No.	Item	Specification	Test Method
1	Color and aspect	Transparent and colorless	GB 9761
2	Pencil hardness (film ruptured)	≥2H	GB 6739
3	Adhesion(1mm)	≤grade 1	GB 9286
4	Flexibility	≤2mm	GB/T 1731
5	Impact resistence	≥30kg.cm	GB/T 1732
6	Cupping test (composite layers)	≥3mm	GB 9753
7	Inter-coat adhesion	≤grade	1GB 9286
8	Gloss %	≥90@20°	GB9754
9	Distinctness of Image(PGD value)	≥0.8	GB/T 13492
10	24 hour gasoline (90#) resistance	No obvious change	GB/T 1734
11	240 hour water resistance(distilled water @40℃)	No obvious change	GB/T 1733
12	24 hour acid resistance (0.05M H_2SO_4)	No obvious change	GB/T 1763
13	24 hour alkali resistance (0.1M NaOH)	No obvious change	GB/T 1763
14	2000 hour QUV Weatherability	Gloss reduction≤10%, allow slight color deviation(△E≤3.0NBS), no other obvious changes	ASTM G 53-77

LV280罩光清漆
LV280 CLEAR COAT

注：试验样板制作条件

A、1-5项检测采用单层漆膜：
马口铁板：50mm×120mm×0.2-0.3mm
钢板：70mm×150mm×0.5-0.8mm
0号砂纸打磨除锈及镀锡层
膜厚：23 ±3 μm，烘烤条件：140℃×30min

B、6-14项检测采用复层漆膜：
在汽车电泳钢板上涂中涂漆，烘干后，
用湿碰湿方法喷涂闪光基底漆和罩光清漆
电泳漆膜厚 20±3μm，中涂漆膜厚 25-35μm
闪光漆膜厚 15-25μm，罩光清漆膜厚 35-45μm
烘烤条件：140℃×30min

施工性能

序号	项目	指标
1	漆膜过烘烤性（160℃×30min）	漆膜颜色符合标准板，无明显色差
2	漆膜流挂性	≥50μm
3	漆膜过喷施工性	≥60μm，漆膜无针孔、气泡
4	静电施工性 喷涂电阻	适于静电喷涂 0.2-2.0MΩ·m
5	稀释剂	NO:2100、NO:2100夏
6	稀释率	喷涂粘度为18-28s（涂-4杯/20℃）时，稀释剂添加量为15%-30%
7	闪蒸时间	≥10min
8	湿碰湿配合性	与VT180W、VT280W基色底漆均有很好的配套施工性能

NOTES: TESTING PANEL PREPARATION

A. Item 1-5 are tested on monolayer
Tin plated panel: 50mmx120mmx0.2-0.3mm
Steel panel: 70mmx150mmx0.5-0.8mm
Sand with 0# sandpaper to remove rust and tin layer
Thickness: 23 ± 3 μm, bake conditions: 140℃x30min

B. Item 6-14 are tested on composite coatings
Electrodeposite automotive steel panel, then spray PS and bake.
Spray metallic base coat and clear coat by wet-on-wet
Thickness of e-coat: 20±3um, Thickness of PS: 25-35um
Thickness of metallic base coat: 15-25um, Thickness of clear coat: 35-45um.Bake conditions:140℃×30min

APPLICATION PROPERTIES

No.	Item	Specification
1	Over baking (160℃x30min)	Accord with std. panel. No obvious color deviation
2	Sagging	≥50μm
3	Over spraying	≥60μm, no pinholes and bubbles
4	Electrostatic applic-ability Resistance	Suitable 0.2-2.0MΩ·m
5	Thinner	NO.2100, NO.2100 Summer
6	Dilute ratio	Add 15-35% thinner to adjust spray vis. at 18-28s(Cup #4 @20℃)
7	Flash-off time	≥10min
8	Wet-on-wet applicability	Well match VT180W, VT280W metallic base coat

LV380罩光清漆
LV380 CLEAR COAT

类型及用途：

以丙稀酸树脂为主要成膜物质，拼用流变控制树脂、氨基树脂、助剂、溶剂制作的汽车罩光清漆。主要用于轿车、轻型车等车型的表面罩光涂饰。

产品特点：

易于施工，流平流挂平衡好
漆膜光亮、丰满，鲜艳性好
耐老化性及耐化学药品性好

原漆性能

序号	项目	指标	试验方法
1	状态	透明或乳白色液体	目测
2	粘度	40-100s（涂-4杯/25℃）	GB/T 1723
3	固体份	≥50%（重量百分比）	GB 6751
4	细度	≤10μm（乳白）	GB/T 1724
5	贮存稳定性（5-30℃）6个月	无异常变化	GB 6753.3-86
6	闪点	≥21℃	
7	禁用物质	含量符合标准规定	
8	气味	无刺激性及不愉快气味	

漆膜性能

序号	项目	指标	试验方法
1	颜色及外观	无色透明	GB 9761
2	柔韧性	≤2mm	GB/T 1731
3	附着力（1mm）	≤1级	GB 9286
4	铅笔硬度（划破）	≥2H	GB 6739
5	冲击强度	≥30kg.cm	GB/T 1732
6	杯突试验	≥3mm	GB 9753
7	层间附着力	≤1级	GB9286
8	光泽度%	≥90（20°角）	GB9754
9	鲜映性（PDG值）	≥0.8	GB/T 13492
10	耐汽油性（90#汽油）24hr	无明显变化	GB/T 1734
11	耐水性（40℃蒸馏水）240hr	无明显变化	GB/T 1733
12	耐酸性（0.05M H2SO4）24hr	无明显变化	GB/T 1763
13	耐碱性（0.1M NaOH） 24hr	无明显变化	GB/T 1763
14	人工老化实验	QUV老化1500hr，失光率≤15%，允许轻微变色（△E≤3NBS），其它无明显变化	ASTM G 53-77

TYPE AND USE

LV380 is an automotive clear coat using acrylic resin as the main film-builder blended with rheology control resins, amino resins, additives and solvents. It is mainly used as the clear coat for passenger cars and light duty vehicules.

CHARACTERISTICS

Easy application. Good balance between levelling and sagging.
Excellent film fullness, gloss and brilliance.
Good weather ability and chemical resistance.

PAINT PROPERTIES

No.	Item	Specification	Test Method
1	Condition in container	Transparent or milk white liquid	Visually check
2	Viscosity	40-100s (Cup #4 @25℃)	GB/T 1723
3	Fineness	≤10μm(milk white)	GB/T 1724
4	Solid contents	≥50% (by weight)	GB 6751
5	half year storage stability @5-30℃	No abnormity	GB 6753.3-86
6	Flash point	≥21℃	
7	Forbidden matter content	Accord with std. Regulations	
8	Odor	No irritative or unpleasent smell	

FILM PROPERTIES

No.	Item	Specification	Test Method
1	Color and aspect	Transparent and colorless	GB 9761
2	Pencil hardness (film ruptured)	≥2H	GB 6739
3	Adhesion(1mm)	≤grade 1	GB 9286
4	Flexibility	≤2mm	GB/T 1731
5	Impact resistence	≥30kg.cm	GB/T 1732
6	Cupping test (composite layers)	≥3mm	GB 9753
7	Inter-coat adhesion	≤grade	1GB 9286
8	Gloss %	≥90@20°	GB9754
9	Distinctness of Image(PGD value)	≥0.8	GB/T 13492
10	24 hour gasoline (90#) resistance	No obvious change	GB/T 1734
11	240 hour water resistance(distilled water @40℃)	No obvious change	GB/T 1733
12	24 hour acid resistance (0.05M H_2SO_4)	No obvious change	GB/T 1763
13	24 hour alkali resistance (0.1M NaOH)	No obvious change	GB/T 1763
14	1500 hour QUV Weatherability	Gloss reduction≤15%, allow slight color deviation(△E≤3.0NBS), no other obvious changes	ASTM G 53-77


五嶽獨尊
昂頭天外